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VIRGINIA MEDICAL MONTHLY

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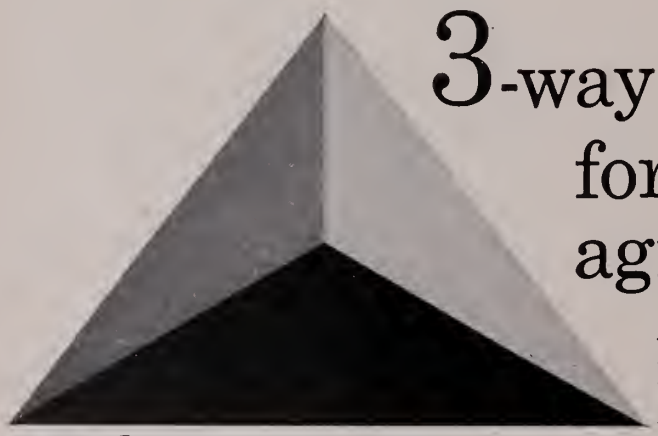

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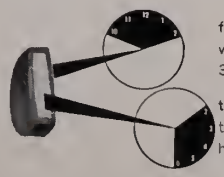

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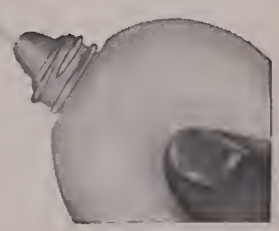

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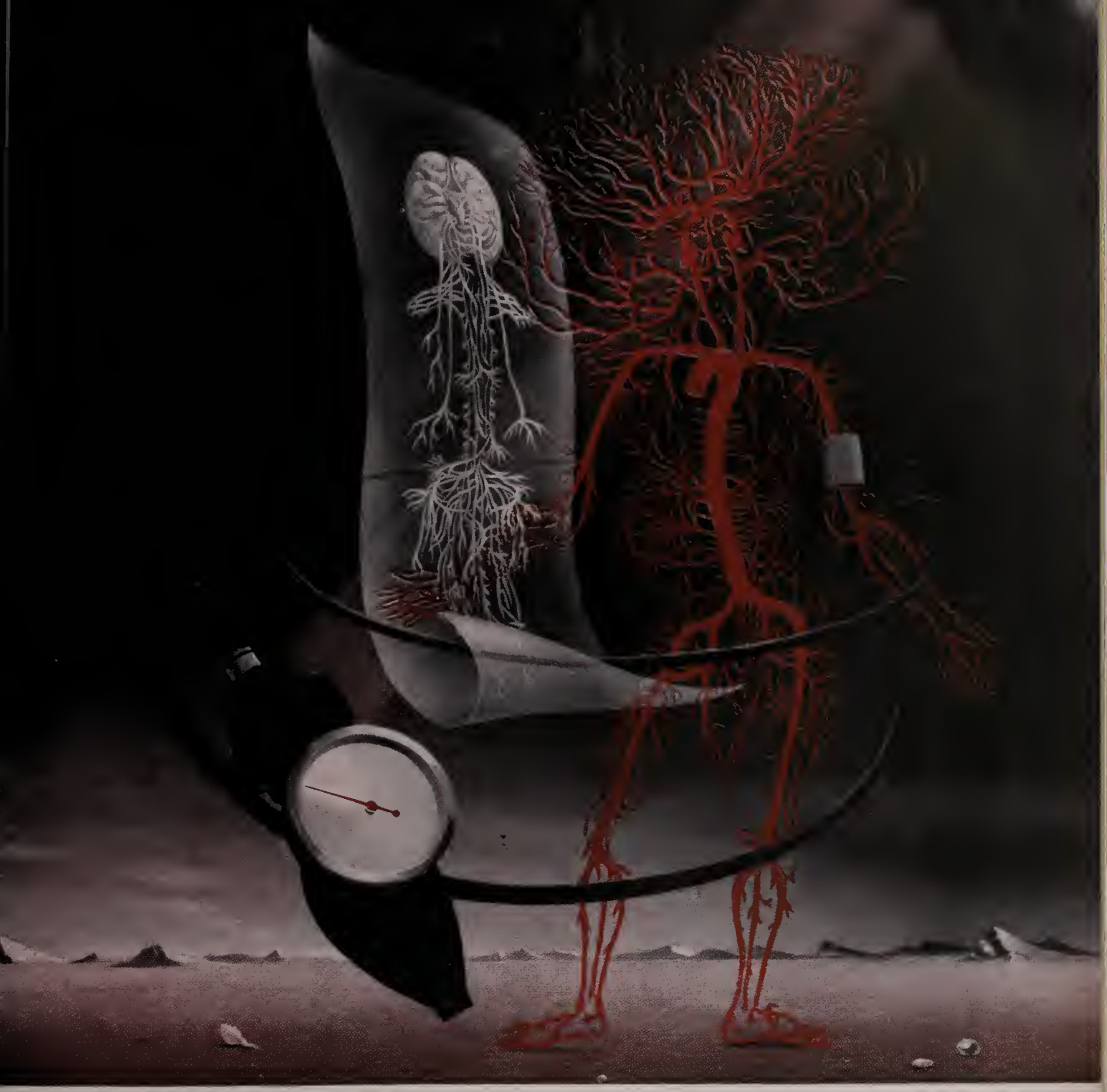

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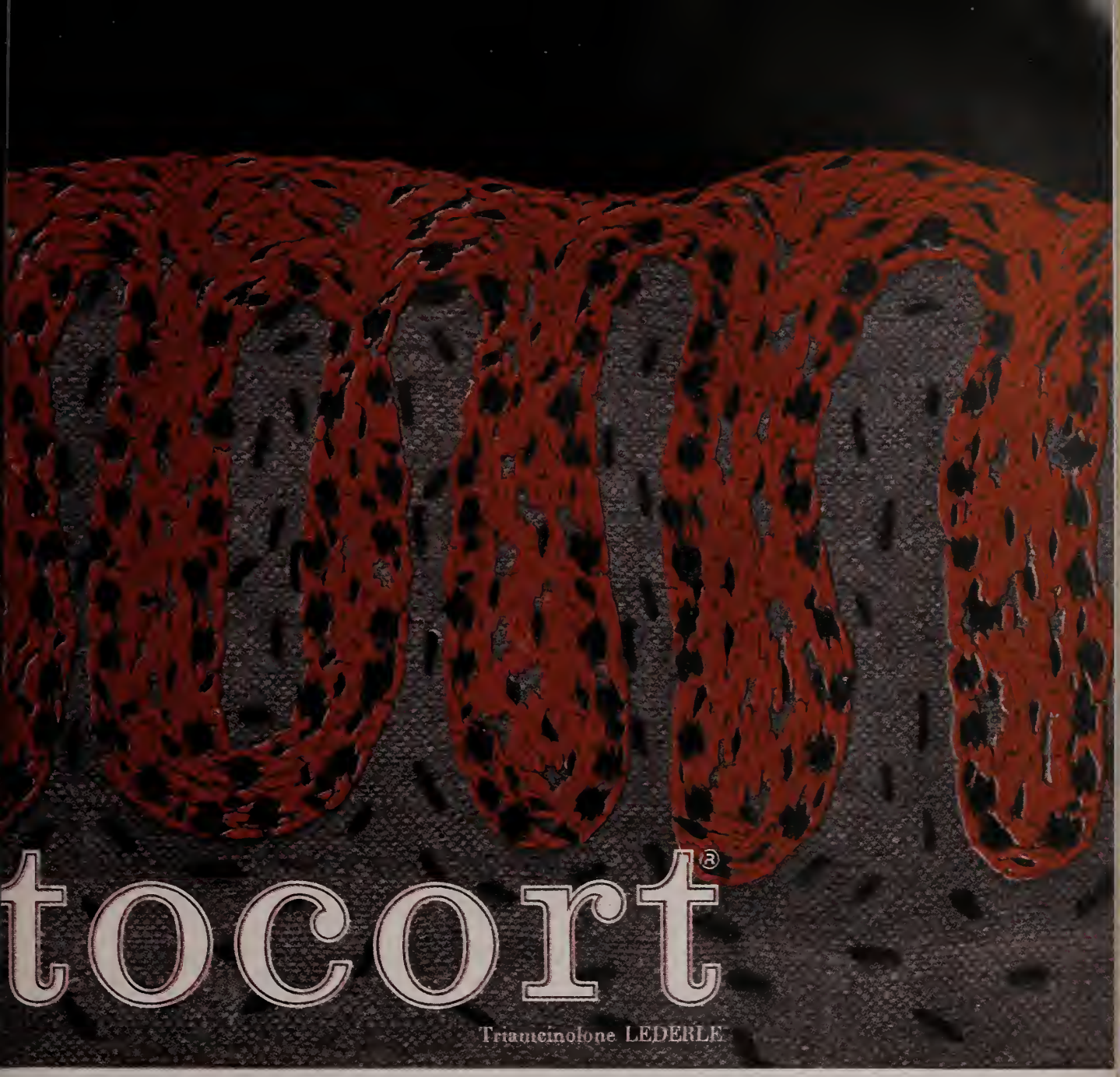

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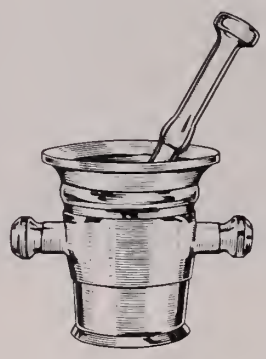

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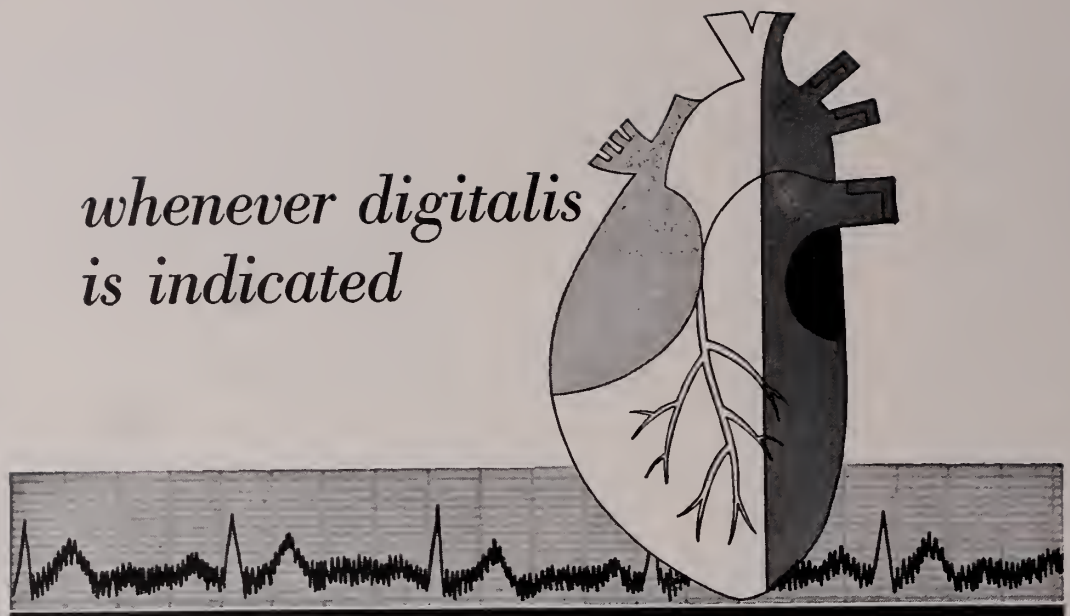

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Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy, Boston, Little, Brown & Company, 1954, p. 23, par. 2.

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Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. Antibiotic Med. & Clin. Ther. 6:108 (Feb.) 1959.

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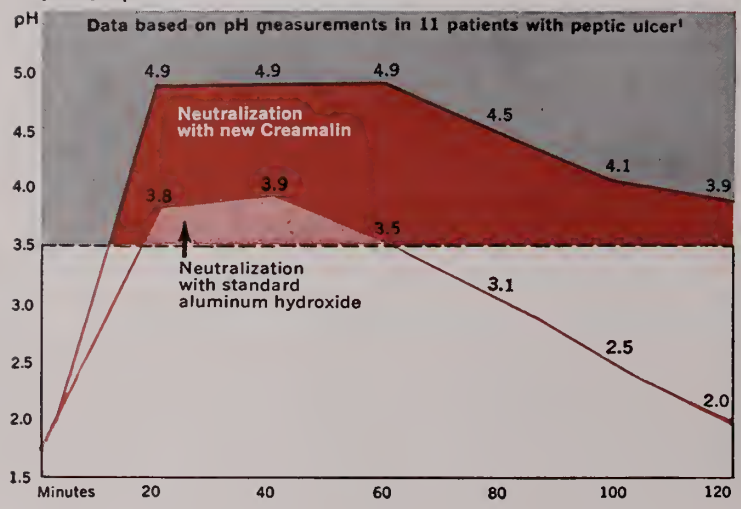

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1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: J. Am. Pharm. A. (Scient. Ed.) 48:384, July, 1959.

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1. Goodman, L.S. and Gilman, A.: The Pharmacological Basis of Therapeutics, 2nd Ed., Macmillan & Co., New York (1955).

2. Roberts, E.: Four Year Evaluation of an Antihypertensive Agent, J. Am. Med. Women's Assn. *13*:349 (1958).

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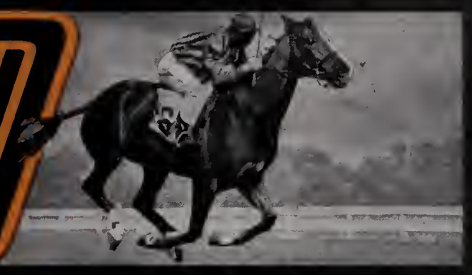

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1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis. C. V. Mosby Company, 1958, p. 347.

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References: 1. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 2. Lichtman, A. L.: Scientific Exhibit, Internat. Coll. Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April. 1960.

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The Virginia
MEDICAL
MONTHY

July, 1960
Vol. 87, No. 7
Whole No. 1298

Guest Editorial....

The Forand Bill and the Constitution

THE FORAND BILL recently before Congress would provide "free" medical and hospital care for Social Security beneficiaries. Curiously, no one seemed to question the constitutionality of that bill, though a few years back the constitutionality of the measure would have been considered highly debatable. However, the Constitution has not changed, but the Supreme Court is the arm of the Government that has made possible such socialistic measures out of harmony with American tradition of states' rights, private capitalism, and individual liberty.

In January, 1936, the Agricultural Adjustment Act was declared unconstitutional. The vote was 6-3, with Stone, Brandeis and Cardoza dissenting against the majority opinion of Hughes, Roberts, Sutherland, McReynolds, Van Devanter and Butler. Roberts, who wrote the majority opinion, said, "Another principle embedded in our Constitution prohibits the enforcement of the Agricultural Adjustment Act. The act invades the reserved rights of the states. It is a statutory plan to regulate and control agricultural production, a matter beyond the power delegated to the Federal Government. The tax, the appropriation of the funds raised and the direction for the disbursement are but parts of the plan. They are but means to an unconstitutional end."

A few months later, however, in October, 1936, a considerable change came over the reasoning of Chief Justice Hughes and Justice Roberts. This time they sided with Stone, Brandeis and Cardoza in declaring the Social Security Act unconstitutional. Dissenting, on the grounds the act invaded the rights of the states, were McReynolds, Sutherland, Van Devanter, and Butler. Why the AAA should be declared unconstitutional and Social Security not is rather difficult to understand. The dissenting Justices did not mince any words as to how they felt about the conflict of Social Security with the states' rights concept. McReynolds quoted at considerable length a veto message President Pierce sent to the Senate in 1854 regarding a bill which similarly would usurp state authority. President Pierce remarked, "Indeed, to suppose it susceptible of any other construction would be to consign all the rights of the states and of the people of the states to the mere discretion of Congress, and thus to clothe the Federal Government with authority to control the sovereign states, by which they would have been dwarfed into provinces or departments and all sovereignty vested in absolute consoli-

dated central power, against which the spirit of liberty has so often and in so many countries struggled in vain.

"In my judgment you cannot by tributes to humanity make any adequate compensation for the wrong you would inflict by removing the sources of power and political action from those who are to be thereby affected. If the time shall ever arrive when, for an object appealing, however strongly, to our sympathies, the dignity of the States shall bow to the dictation of Congress by conforming their legislation thereto, then the power and majesty and honor of those who created shall become subordinate to the thing of their creation. I but feebly utter my apprehension when I express my firm conviction that we shall see 'the beginning of the end.'" Obviously Presidents Pierce and Franklin Roosevelt did not have the same conception of states' rights.

Justice McReynolds made the following comments on the Social Security Act: "No defense is offered for the legislation under review upon the basis of emergency. The hypothesis is that hereafter it would continuously benefit unemployed members of a class. Forever, so far as we can see, the states are expected to function under federal direction concerning an internal matter. By this sanction of this adventure, the door is open for progressive inauguration of others of like kind under which it can hardly be expected that the states will retain genuine independence of action. And without independent states a Federal Union as contemplated by the Constitution becomes impossible."

In his dissent, Sutherland states, "But the question with which I have difficulty is whether the administrative provisions of the act invade the governmental administrative powers of the several states reserved by the Tenth Amendment. A state may enter into contracts; but a state cannot, by contract or statute, surrender the execution, or a share in the execution, of any of its governmental powers either to a sister state or to the Federal Government, any more than the Federal Government can surrender the control of any of its governmental powers to a foreign nation. If we are to survive as the United *States,* the balance between the powers of the nation and those of the states must be maintained. The threat implicit in the present encroachment upon the administrative functions of the states is that greater encroachments, and encroachments upon other functions, will follow." Certainly the Forand bill is an example of such an encroachment.

Butler concluded his dissent with the statement, "The terms of the measure make it clear that the tax and credit device was intended to enable federal officers virtually to control the exertion of powers of the States in a field in which they alone have jurisdiction and from which the United States is by the Constitution excluded."

It seems regrettable that the Democratic candidates for the presidential nomination, by backing the Forand bill, plan to further emasculate the concept of states' rights. In this connection it is interesting that few if any Southern political leaders point out this proposed intrusion on states' rights. One hundred years ago the South engaged in a bitter war over the concept of states' rights. Now the states seem to be virtual nonentities in comparison with the Federal Government.

James K. Hall, Jr., M.D.

Dr. Hall is a member of the staff of Westbrook Sanatorium, Richmond, Va.

Ill-advised Pelvic Surgery for Uterine Cancer

KARL H. MARTZLOFF, M.D.
Portland, Oregon

Failure to appreciate the limitations of some diagnostic techniques has led to radical pelvic surgery where no cancer existed. In the case where cancer does exist, simple panhysterectomy has often proved inadequate for cure.

TO INTRODUCE A DISCUSSION with such an apparently critical title might seem to indicate an unduly critical attitude on the part of the author. However, this is not necessarily true when one reflects that hospital staffs have so-called "tissue committees", "record committees" and morbidity conference where professional shortcomings are discussed openly, frankly and critically without indulging in personalities or recriminations. Their purpose is disarmingly simple, viz.: to maintain and help improve professional proficiency and thereby protect our patients.

Nevertheless a presentation such as this, is at best, a dangerous undertaking, particularly, if one designs to engage in petty exceptions and minutiae about which there may be bona fide cause for general disagreement or if professional jealousy and personal aggrandizement become motivating factors, for it has been said that "criticism is a study by which men grow important and formidable at very small expense".

If the "ill-advised surgery" to which I wish to call attention represented merely an isolated example or an uncommon observation, then this discussion, for all practical purposes, would be pointless. Also, I am sure that all of us, on occasion, have committed surgical blunders which we would like to forget. Particularly are such errors prone to occur when one is attempting to develop a new or altered approach to a bothersome or unresolved surgical problem. However, time, study and experience will correct this, for here one is dealing with an obviously calculated risk undertaken for a definite objective. But it is neither this nor the exceptional surgical faux pas which I have in mind. Rather, I wish to discuss briefly those occurrences where some of the well recognized anatomical and pathologic concepts of cancer surgery are ignored and violated with seeming regularity.

In my opinion the performance of an "ill-advised" operation, of the type to which I have just referred, is a reflection of the surgeon's training, experience, judgment, emotional stability and diligence, rather than his integrity.

This is not meant to infer that ill-advised therapy is confined to the field of surgery, for it can and does occur in all fields of medicine. However, where surgery is involved the setting is more dramatic, therefore, any failure, more tragically conspicuous.

In order to approach this presentation analytically and graphically, illustrative recent case histories of patients from my own current private practice have been used. It seemed to me that for our purpose, since most of you are in private practice, this would be more realistic, personal and pertinent than a cumulative statistical survey. Therefore, to bring our discussion into sharper focus, I have divided this material into two general categories in order to illustrate more specifically what we mean by: (1) unnecessary surgery and (2) inadequate surgery.

A group of eleven recent patients forms the nucleus for this commentary and, with one exception, they represent individuals who had had their original operations elsewhere. In listing these patients in the two proposed classifications, I realize that others using the same material might have made different

From Department of Surgery, University of Oregon, Medical School.

Presented at a meeting of The Society of Pelvic Surgeons and the 31st Annual McGuire Lecture Series, Medical College of Virginia, Richmond, Virginia, October 24, 1959.

dispositions, different interpretations and arrived at different conclusions.

UNNECESSARY OR EXCESSIVE SURGERY

Three patients were placed in this category, and the reason for this will become readily apparent, viz: *Case 1.* Concerns a patient on whom a preliminary exfoliative cytology study with the Papanicolaou technic revealed a Class V smear. Without further study a panhysterectomy was done. No cancer or carcinoid change (cancer-in-situ) was found in the operative specimen. *Case 2.* Preliminary Papanicolaou smears were rated as Class V. Diagnostic curettage and conical excision of the cervix revealed no suggestive neoplastic cytology. However, conventional panhysterectomy was performed. The operative specimen revealed no neoplasm. *Case 3.* Exfoliative cytology study with the Papanicolaou technic revealed Class 4 and 5 smears. Material obtained by curettage was irrelevant. Material for biopsy from a conization of the cervix showed some cytologic atypism but nothing suggestive of intraepithelial carcinoid change (cancer-in-situ). Panhysterectomy produced a uterus free of demonstrable neoplasia. Post-operative vaginal smears for cytology were rated as Class 3 and 4. Tissue for biopsy from the vaginal vault was insignificant, except for one section, which showed some cellular atypism; therefore, colpectomy was performed.

COMMENT

The management of the three patients whose experiences have been recited briefly illustrates, I believe, three important and disturbing considerations. *First,* is the profound emotional impact which a Class 4 or 5 Papanicolaou smear produces on some physicians and the misuse of the information a Papanicolaou smear is supposed to convey. This is not meant as a criticism of exfoliative cytology, but it does reveal an alarming misunderstanding of its purpose and failure to appreciate the pitfalls which these technics possess. *Second,* the management of these patients shows a complete disregard and rejection of the basic diagnostic value of studies made on tissue obtained for biopsy by excision in comparison with exfoliative cytology. Indeed, Case 3, reveals the almost hysterical reaction of a clinician to suspicious smear findings and to minimal cytologic alteration in the biopsy material. In my experience material obtained properly and in adequate amounts for histologic study should in all but the exceptional instance provide sufficient evidence on which to base an acceptable definitive diagnosis.

Finally, these occurrences continue to illustrate, unfortunately, a persistent blind faith, particularly when the problem of cancer-in-situ arises, in the ability of conventional panhysterectomy to compensate for and rectify any error involved in overlooking a coexistent, but unrecognized cancer. The shaky premise of this assumption is illustrated by our second group of patients whom we present under the heading of our second category.

INADEQUATE SURGERY

Eight patients comprise this group. These, with two exceptions, have been under observation during the past few months. All had uterine cancer, and they illustrate clearly the problem we wish to present. Five were operated because they had cervical cancer and one for adenocarcinoma of the corpus uteri. A conventional panhysterectomy without removal of any appreciable amount of vagina was done on each patient. One of these, additionally, had a pelvic node dissection, although the uterine resection removed no recognizible vagina anteriorly.

In two instances (Cases 4 and 6) panhysterectomy was done without definite preoperative recognition of coexisting cancer. Case 4 represented an instance of cancer-in-situ where suspicion, initially, was aroused by Papanicolaou smears. Curettage revealed cancer-in-situ. Tissue for biopsy obtained by conical excision of the cervix proved irrelevant. Nevertheless, panhysterectomy was performed, because of the previously demonstrated intraepithelial carcinoid change. The operative specimen, however, revealed a small but unmistakable epidermoid cancer in the general vicinity of the external os, an area that should have been included in any properly executed conical excision and, therefore, available for biopsy.

The other instance (Case 6) revealed unsuspected epidermoid cancer in the cervical canal when the specimen was examined in the laboratory. This patient was observed regularly by her physician for six and two-thirds years before vaginal recurrence became manifest.

Now the purpose of this review is to emphasize and explain a few fundamental concepts which, in my opinion, have been violated with resultant or potential tragic consequence to these patients by employing simple panhysterectomy as a form of definitive cancer therapy. In stressing the foregoing we do not mean to deprecate other important facets in the operation for uterine cancer. However, at this

point and for purposes of emphasis we wish to narrow our discussion to the single consideration of hysterectomy as a possible acceptable phase in the surgical treatment of uterine cancer.

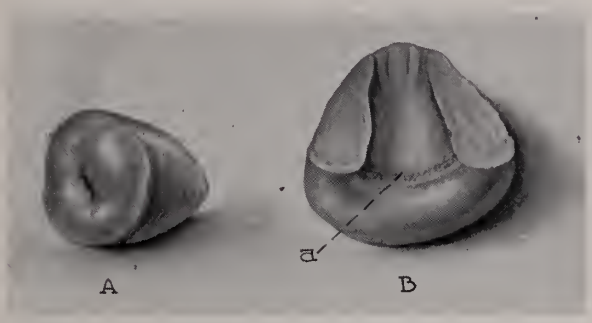

Fig. 1—(A) Appearance of adequately removed cone-shaped specimen. (B) specimen split anteriorly and (a) Strato-columnar epithelial junction. Obtaining of such a specimen requires good exposure, accurate dissection and proper hemostasis. Drawn from fresh operative specimen which histologically showed cancer-in-situ. No further treatment. Eight years later panhysterectomy for enlarging myomatous uterus. Operative specimen showed no suggestive carcinoid changes (4733). (Martzloff. West. J. Surg. 67: 160, 1959).

In the early days of the operation for cervical cancer, when the importance of vaginal resection was not recognized, it was well known that one of the most common sites for postoperative cancer remanifestation was the vaginal vault. To illustrate this discouraging and generally fatal complication Winter, for example, reported 54 local recurrences among 58 who developed post-operative remanifestation of cancer, while Pfannenstiel and Henkel reported respectively 83 per cent and 64 per cent.

Likewise the complicating and concomitant involvement of the vagina by cervical cancer had long been recognized and described by Ruge and Viet (1882) by Cullein (1900), by Schottlaender and Kermauner (1912) and many others. In fact, Kermauner (1928) stated that only by more extensive vaginal resection could he reduce the incidence of vaginal recurrence in his clinic.

Now what do our eight illustrative cases reveal in this regard. Four developed macroscopic cancer in the vagina 10, 10, 6⅔ and 1½ years after simple panhysterectomy. Another patient (case 5) following reoperation five months after simple panhysterectomy for cervical cancer, showed microscopic cancer in the wall (Fig. 3) of a grossly normal appearing vagina. Panhysterectomy had been preceded two years before by radium and x-ray therapy. Therefore, five patients with cervical cancer revealed cancerous vaginal involvement from five months to 10 years after being treated by simple panhysterectomy.

Of the other three patients one, (Case 1) a nullipara, with a verified cervical adenocarcinoma is now living and well 14 years after vaginal panhysterectomy (at age 24) where little if any vagina was

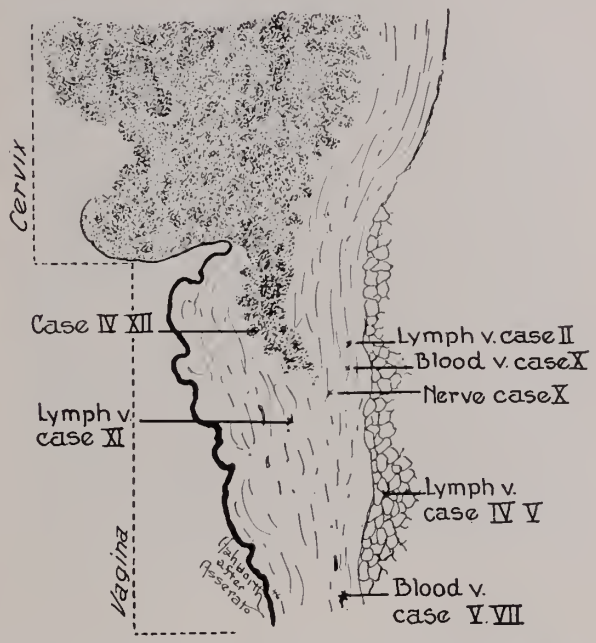

Fig. 2—Redrawn from Asserato's description showing schematically site of intramural microsopic vaginal spread of cancer in 6 of the 12 operative specimens of Doederleins. (Lewis-Walters Practice of Surg. Vol. 10, Chap. 14).

removed and no paravaginal incision was used to facilitate the operation.

The other two patients (cases 3 and 4) were operated during the past 18 months and show no recurrence.

These eight cases illustrate and reconfirm: (1) the high incidence of complicating vaginal cancer following simple panhysterectomy for cervical cancer (2) the remarkable biological latency of some cancers as illustrated by cases 6, 7 and 8, and, (3) the profound shortcomings of simple panhysterectomy for effectively controlling uterine cancer. Case 1, however, illustrates the curability of an occasional patient by an operation that falls far short of fulfilling what one might consider acceptable basic requirements.

ANATOMICAL CONSIDERATIONS

An explanation of the cause of vaginal remanifestation of uterine cancer and the consequent need of removing a large segment of normal appearing vagina in order to prevent this has been clearly demonstrated by the studies of Henkel (1907), by Assereto (1907) and is well illustrated by our Case 5. Assereto's

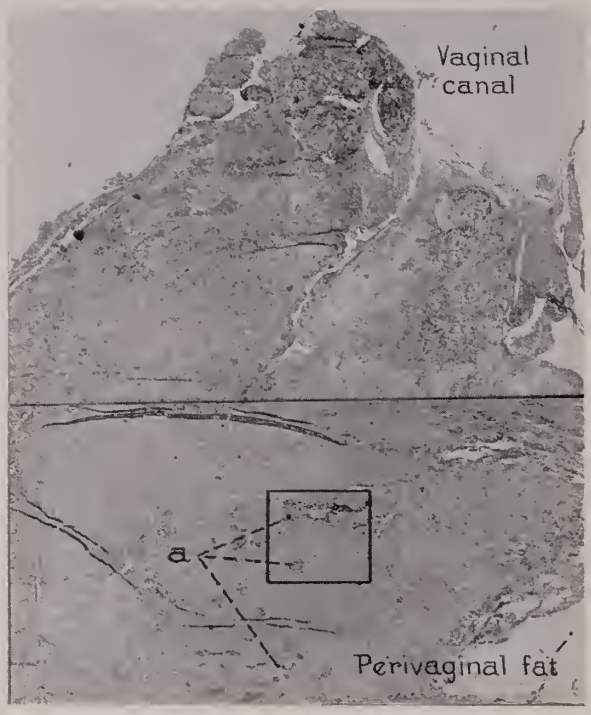

Fig. 3—Intramural vaginal cancer metastases at (a) in grossly normal appearing vagina from our case 5. (Cummings—6371).

excellent serial section studies in Doederlin's Clinic showed microscopic vaginal submucosal metastases in 6 to 12 operative specimens of cervical cancer. Furthermore the anatomical basis for this is well shown in the studies of Bartels, Poirier, Sappey and others on the uterovaginal lymphatic circulation. Briefly, the lymphatic circulation of the cervix and proximal vagina is composed of a close and apparently freely anastomosing lymphatic network which evidently facilitates interstitial spread of cervical cancer to the vagina.

The foregoing observations emphasize the well recognized importance of applying to uterine cancer, in so far as possible, the same concepts that are observed in the surgical treatment of cancer in general.

For uterine cancer adequate surgical treatment, therefore, implies not only removal of the entire uterus and adnexa but, additionally, as a minimal acceptable procedure resection of a long segment of the vagina together with the paracolpium and parametrium at the pelvic wall. Failing this, pelvic node dissection more than likely becomes a fruitless endeavor, although always a good conversation piece.

As previously intimated our purpose here has been to emphasize, primarily, one phase of the problem, namely, the clinical experiences and the anatomical considerations that make adequate vaginal resection essential. In general this and the necessary dissection leading up to it are the most difficult part of the radical procedure. However, barring an occasional exception, adequate resection will prevent the serious vaginal complication which simple panhysterectomy invites.

SUMMARY AND CONCLUSION

1. The foregoing observations, designed to illustrate examples of either excessive or inadequate sur-

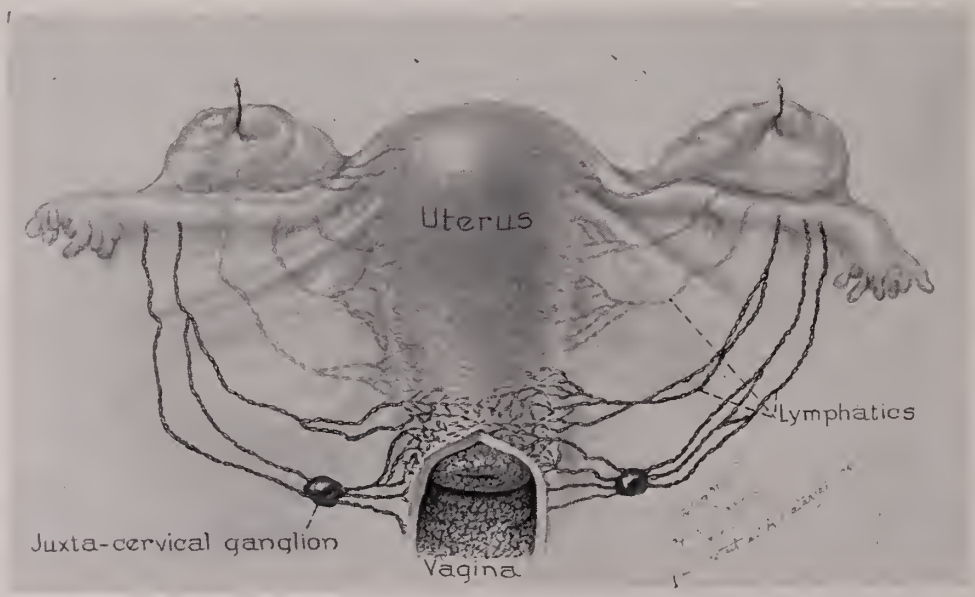

Fig. 4—Illustrating anastomosing lymphatics of distal uterus and proximal vaginal which probably explains facility of intramural spread of cervical cancer to vagina. (Redrawn from Traite' D' Anatomie Humaine by Testut et Latarjet, 1949).

gery have been made on a current group of patients in the private practice of one individual.

2. Three patients of this group were subjected to panhysterectomy on the basis of wholly inadequate anatomical evidence, thus representing unnecessary or excessive surgery.

3. The remaining eight patients had uterine cancer. All were subjected to simple panhysterectomy. One is cured, and five, after varying intervals, showed residual or recurrent vaginal cancer.

4. The anatomical basis for recurrent vaginal cancer is discussed and the reason for the inadequacy of simple panhysterectomy for the cure of uterine cancer is shown.

5. A consideration of vaginal cancer-in-situ and primary vaginal cancer have been omitted purposely.

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Candidates for Hypertension

The highly nervous, overactive type of person probably is not any more susceptible to high blood pressure than his calmer contemporary, according to a Cleveland physician. Dr. Irvine H. Page, director of research of the Cleveland Clinic Foundation, said in an article in the June Today's Health, published by the American Medical Association, that there are "many highly nervous, overactive persons who don't have any hypertension.

". . . in many patients, the hypertension is coming from the kidneys and not from their nervous systems. This is an important, newly-discovered facet of the disease."

We now realize that many persons whose high blood pressure was believed due to an unknown cause actually have a kidney ailment of a type that can be corrected surgically.

Dr. Page said he believed that generally the kidney is responsible for more hypertension than any other single system of the body. He also pointed out that while the kidney can provoke high blood pressure it can also control it.

"The kidney is the provocative organ in the sense that we believe it secretes an enzyme which acts on a constituent in the blood to produce a third substance, which we call angiotensin. We think angiotensin is the cause of high blood pressure of kidney origin, or at least part of the mechanism which causes this condition. As a protective organ, the kidney has a means of destroying this blood pressure raising principle."

He doubted that there was a very close relationship between the incidence of high blood pressure and the so-called strains of modern-day living.

"Stress, of course, is a very difficult thing to evaluate. What is stress to one person is not stress to another. So it is awful hard to assume, for instance, that our generation is under more stress than any other generation."

Considering past generations, there must have been stresses during the Wars of the Roses "and it must have been pretty stressful trying to build a pyramid in ancient times."

Hypertension is well on the way toward being corrected and in some cases the causes successfully treated. However, the disease still is in "a very active phase of research" and "we have a long way to go to complete our understanding of it."

Advantages and Risks of Preserving the Ovary

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Malignant tumors of the ovary may be prevented by prophylactic removal of both ovaries at the time of pelvic laparotomy. There are other considerations, however, that in some patients make the risk of future malignancy more acceptable than the consequence of castration.

AMONG SURGEONS, the obstetrician-gynecologist can be expected to favor conservation of tissues essential to reproduction. Such a traditionally conservative point of view is however not always evident in our management either of gynecologic dysfunction or of pelvic pathology.

When surgery seems indicated, particularly among older patients, we are likely to consider the advantages of the removal of an adnexa, the uterus or the uterus and both adnexa even though they appear normal and obviously capable of continuing function. Such prophylactic removal may seem advisable because of the probability that preservation of these tissues may seem to predispose our patients to disability, repeated pelvic surgery, possibly even malignancy and the risk of death at a relatively early age.

DEFINITIVE PELVIC SURGERY

Our teaching hospitals have trained many general surgeons and gynecologists to operate well. Some of these capable surgeons have emphasized the evils inherent in repeated pelvic laparotomies and as a result, the concept and philosophy of so-called "definitive pelvic surgery" seems to be gaining many advocates. What do we mean by definitive pelvic surgery? If, the first time pelvic laparotomy is indicated, you believe that a total hysterectomy, removal of both ovaries and both tubes as well as the appendix is advisable, regardless of whether both adnexa and the uterus show evidence of pathology or not such a complete pelvic operation may be regarded as "definitive pelvic surgery".

Chester Clark[1] and others have emphasized that the inadequacies of conservative surgery have become increasingly evident in the last two decades. Tyrone[5] concluded that the inadequacies of an initial pelvic laparotomy contributed to 41.6 per cent of the 1,048 hysterectomies he reviewed. Since Clark's report had indicated that within a three-year period surveyed, 10 per cent of the 554 total hysterectomies performed on his service were performed to relieve discomforts persistent since an earlier "incomplete" operation, he concluded that 6.5 per cent of all their pelvic laparotomies seemed indicated because of the persistence of complaints unrelieved after an initially "incomplete" pelvic operation.

Today it is evident that rather wholesale "definitive" removal of the females reproductive organs may be elected; whenever inflammatory disease seems to indicate laparotomy, when fibroids or bleeding indicate a hysterectomy, when postmenopausal bleeding indicates a curettage, or when postpartum hemorrhage or the advisability of postpartum sterilization warrants consideration of hysterectomy or tubal ligation. There is neither time nor is this the place to discuss the advisability of a hysterectomy in the management of any of these conditions. We are here, however, to object to the thought that if it is a good idea to remove the uterus for any one of those indications, it is an even better idea, and a forever to be appreciated service to your patient, to take out both tubes and both of her ovaries as well—"so that she will never again have any trouble in her pelvis". The advantages claimed are likely to be realized in the patient's future, when the women so operated can at least assure any doctor examining her, that lower abdominal pain cannot then be due to a cystic or hemorrhagic ovary, to a recurring pelvic inflammation or to the development of endometriosis.

We should, of course, take into consideration how the patients subjected to complete or definitive pelvic surgery feel about the results. Clark has also been

Presented in the McGuire Lecture Series of the Medical College of Virginia to The Society of Pelvic Surgeons Richmond, October 22, 1959.

interested in this aspect of the problem, and has reported a follow-up of 215 of the women subjected to complete removal of the adnexa and uterus at the time of a first indicated pelvic laparotomy. Clark believed that the control of the patients complaints should be considered good in 95 per cent of such cases. He also observed that the atrophic changes in the genitalia, urinary tract, breast, skin and bone could all be prevented or relieved by the administration of estrogens "as long as they seem indicated" and emphasized that changes in libido following hysterectomy seem to have no relationship to whether the ovaries are preserved or removed. Among the 215 castrates Clark considered, he found only five who admitted a loss of libido following their operation and stated that the symptoms attributed by many to the loss of their ovaries seemed unrelated to estrogen deficiency and were not relieved by the administration of estrogens.

We do not deny that too many women have been operated for conditions not relieved by or developing after their first pelvic laparotomy. The newer supportive measures now available do permit more extensive operations with little if any increased risk to the patient. The now universally available, convenient to take and relatively inexpensive hormone preparations for ovarian replacement therapy may eliminate many and perhaps all of the disadvantages of castration. Perhaps, if all the eventual injury to ureters and bowel (more likely in reoperations for incompletely removed benign pelvic disease) could be added to the relatively innocuous sequelae of most adnexal or uterine excisions then the complications chargeable to such initially incomplete but eventually repeated pelvic operations would certainly exceed those reported when total hysterectomy and bilateral adnexal removal are employed as a routine procedure whenever the uterus or one adnexa need be removed.

ADVANTAGES OF PRESERVING THE OVARY

Does it not seem advisable however to also give consideration to the question of how much the ovary may be worth to the woman—after 25, or 35 or even 45 years of age? *Does* the ovary have a function—even after the cessation of menstruation?

Those who advocate routine prophylactic removal of the ovaries, are likely to do so with the thought that they are removing the ovaries at an age when function of the tissue need no longer be considered. Much evidence indicates however that the ovary continues to produce at least estrogens after the menopause. Though the amount and significance of such postmenopausal function must vary considerably among individuals the advantages of maintaining some estrogenic effect as women grow older may eventually be recognized as a matter of the utmost importance. Changes due to a lack of estrogenic effects have been reported[2,8] to result in arteriosclerotic disease and increasing hypertension as well as discomforts and disabilities to a point of eventually shortening the lives of some of the individuals so affected.

It is well to remember that ovarian removal and the withdrawal of estrogens should not be considered one and the same, for the effects are often not the same. A number of reported studies indicate that the production of estrogens by the so-called extra pelvic sources is appreciable. Such extra ovarian sources of estrogen are not constant or predictable, however, and as a result, the effects of ovarian removal are not predictable either. We have observed that the so-called extra pelvic sources of estrogen do seem able to protect more than 50 per cent of castrated women from the development of atherosclerosis and osteoporosis, and from the dysfunctions and discomforts incident to the development of atrophic epithelial changes in the buccal, nasopharyngeal and genito-urinary membranes. An impressive number of the castrates we see however do not seem as comfortable nor as happy as the patients Clark described. The purely objective evidences of estrogen deficiency are not the only complaints likely to be voiced by women whose ovaries are removed "prophylactically", even when hysterectomy has unquestionably been indicated. At least in our patients the psychological, subjective consequences of ovarian removal often seems to produce more apparent disability than do the degrees of atrophic tissue change which may later develop.

The reported evidences of ovarian function after the menopause would be a matter of more or less academic interest, if it were not for the fact that the operation of hysterectomy is now so frequently employed. It is also true that prophylactic removal of the ovaries would not be as likely to be considered nor as frequently done if the ovaries were as difficult to remove as the adrenal or the pituitary glands. Perhaps it is unfortunate that removal of the ovary involves so little risk to the patient, and that oophorectomy requires but the simplest of surgical technique.

RESECTION OR OOPHORECTOMY

Indications for oophorectomy were not a problem

when the risks of surgery were always justified by tumors so large as to be obvious on examination. Today, however, we are more frequently obliged to decide whether enlargement is sufficient to indicate pathology rather than dysfunction, when suspected dysfunction indicates ovarian resection rather than ovarian removal, and when if ever, removal of a normal ovary or normal ovaries seems justified.

Is ovarian removal necessary to minimize the likelihood of further disability when laparotomy seems indicated for pelvic inflammatory disease? How completely should the reproductive organs be removed when a young woman has a granulosa cell tumor, a dysgerminoma, or a teratoma apparently limited to one ovary? When other pelvic surgery is indicated and the patient is approaching the age of her climacteric, should her normal appearing ovaries be removed in order to prevent the possible later development of ovarian malignancy? Certainly hospital tissue committees would like to know when removal of seemingly normal ovarian tissue is justified.

Consideration of this problem might well start with the admission that when enlargement of the ovary is suspected or evident on examination, the patient's age does make a difference. Cystic dysfunctional enlargements are not likely in older women and this possibility should not be suspected after the menopause. When the woman is younger, however, dysfunctional cystic enlargement of the ovary is most likely to be found, particularly when menstrual irregularities have also been reported. The tendency of such non-neoplastic cystic ovaries to undergo spontaneous regression is well known. Reexamination after a few weeks is always advisable before making a decision as to the probable nature of a small cystic tumor in a younger woman.

We would emphasize also, that the resection of relatively small, cystic ovaries is not advisable when the patient complains only of pain. Admittedly there are complaints which do justify laparotomy for resection of the cystic, dysfunctionally enlarged ovary, but only when the clinical criteria of specific types of dysfunction seem satisfied, is the splitting, wedging or resection of cystic ovaries likely to prove beneficial. While dysfunctional cystic enlargement of the ovaries in the Stein Leventhal syndrome does warrant *resection,* particularly of the medullary central portion of the ovarian tissue, complete removal of one or both ovaries is certainly *not* indicated. There is no established indication for oophorectomy in the treatment of dysfunctionally enlarged ovaries.

When a cystic feeling mass no larger than 5 or 6 cm. in diameter has been discovered in a patient less than 40 years of age, the tumor might well be regarded as dysfunctional and self-limited, at least until additional time and reexamination suggests persistent enlargement and the probability of a true neoplasm.

Even in younger women, however, as soon as ovarian enlargement seems progressive or has been observed to persist throughout several menstrual cycles, a true neoplasm should be suspected. Laparotomy *is* indicated when repeated examination suggests that enlargement of the ovary is neoplastic.

How extensive an operation is indicated when a cystoma or one of the rarer but benign looking apparently solid neoplasms has replaced one ovary? We should first decide when it would be permissible to attempt resection of the neoplasm from the ovary, saving any portions of ovarian tissue which appear uninvolved and adjacent to the periphery or capsular distribution of the blood supply, and second, when to remove both ovaries because of the probability of the bilateral occurrence of this tumor or the eventual development of other pathology in the opposite ovary.

Ovarian resection takes more time and does not appear to be the surgically neat procedure apparent when oophorectomy is performed. Nevertheless, a cyst so large as to apparently replace the entire ovary will sometimes be found to permit excision of the neoplasm along with preservation of considerable ovarian tissue. It is most essential to preserve the outer capsular portions of the ovary—for therein will be the blood supply. Recognition of the type of cystoma, and knowledge of the potentialities of the neoplasm as regards the possibilities of malignancy and the chances of bilateral occurrence are essential before we can decide whether resection or oophorectomy is indicated.

When an adenocystoma involves only one ovary, we have not observed post operative evidence of peritoneal implantation or the accumulation of free fluid following the accidental spill of the contents of a benign cystoma at the time of operation, *if* extension through the capsule of the tumor and implantation onto adjacent pelvic peritoneum had not already occurred spontaneously before operation. We *have* observed the postoperative development of pseudomyxona peritonei, but only in those cases in which papillary implantation outside the capsule of the cystoma was evident the first time the abdomen was opened.

RISK OF BILATERAL OCCURRENCE

When complete removal of an ovary seems indi-

cated to remove a unilateral tumor, the ultimate chance of the same or a different type of neoplasm developing on the other side is often considered to suggest the removal of the second ovary on a prophylactic basis. This decision will always be influenced by the patient's age and to a considerable extent by the social and economic factors concerned. A second period of disability and hospitalization would prove a real hardship for the middle-aged woman supporting herself, whereas reoperation for pathology in a remaining ovary would be little more than an inconvenience for the housewife and mother whose family are willing and able to provide her with every opportunity for an agreeable convalescence.

Primary carcinoma of the ovary involves both ovaries simultaneously in more than half of the cases reported. Therefore, when ovarian neoplasms are bilateral the possibilities of malignancy must be considered the matter of first importance.

TABLE 1

BENIGN OVARIAN CYSTOMAS
INCIDENCE OF BILATERAL OCCURRENCE

Dermoids	Simple Cystomas	Pseudomucinous Adenocystomas	Serous Adenocystomas
10-12%	6-9%	7-9%	12-18%

*Data pooled from (4a) and (6).

Table I indicates the frequency with which we will have to decide at operation, whether bilateral tumors are malignant or benign. Obviously it would be a mistake to handle all bilateral tumors as though they were malignant for approximately 12 per cent of dermoids are bilateral and they are most frequently found at a younger age, when preservation of a part of each ovary may be most desirable. In older women however, when the appearance suggests bilateral cystadenoma, even if there should be no evidence of implantation outside the ovarian capsule when the abdomen is opened, we believe it is advisable to make an attempt to remove both cystomas and the adjacent ovaries without rupture of the cyst wall or spill of its content.

The majority of benign ovarian tumors develop so slowly there seems little chance of eventual growth of a neoplasm in an "other" ovary that looks normal at the time of an initial laparotomy for a benign cystoma. Such faith is based on the belief that by the time the patient's one ovary has developed a grossly appreciable tumor, her second ovary—if it appears normal on bisection, is not likely to develop a neoplasm in the future.

Particularly when prophylactic removal of an uninvolved ovary may not be considered advisable, the very fact that both ovaries may not be simultaneously involved, and that a normal looking "other" ovary may later develop a neoplasm, has long seemed to indicate careful palpation of any ovary that is to be preserved and its bisection, even when it appears normal, in order not to overlook beginning pathology in that side. The follow up data reported in Table 2

TABLE 2

179 CASES AFTER UNILATERAL OOPHORECTOMY FOR BENIGN OVARIAN CYSTOMA

(all followed not less than 10 years)

When first ovary removed because of	After interval of	Preserved "other" ovary removed because of
Dermoid	5 years	Dermoid
Dermoid	6 years	Pseudomucinous cystoma
Dermoid	10 years	Dermoid
Simple Cystoma	3 years	Endometrioma
Simple Cystoma	3 years	Simple cystoma
Simple Cystoma	5 years	Simple cystoma
Simple Cystoma	5 years	Fibroma
Simple Cystoma	18 years	Cystadenocarcinoma
Adenocytomas		
" Pseudomucinous	4 years	Simple cystomas
		Pseudomucinous cystadenocarcinoma
	9 years	Pseudomucinous adenocystoma
Serous	5 mo.	Serous cystadenocarcinoma
	9 years	Serous cystadenocystoma
	10 years	Papillary serous cystadenocarcinoma

has convinced us that a similar or different type of neoplasm may ultimately indicate removal of the patients remaining ovary after a surprisingly long interval. To date however we have not observed late development of a neoplasm if the ovary looked normal at the time of bisection, though it is evident that we cannot predict when a preserved ovary is no longer likely to develop pathology.

What is a single "preserved" ovary worth? Employing basal body temperature curves and histologic studies of the endometrium, Whitelaw[7] has suggested that in a majority of cases normal ovarian activity can be quite satisfactorily taken over by the one ovary remaining after unilateral oophorectomy. The survival and function of ovaries preserved at the time of hysterectomy has also been studied by Livingston[3] who concluded that the menopause is not premature when the ovaries are preserved.

Our impression as to the probability of reoperation

for a neoplasm in the preserved "other" ovary, obviously depends upon how long we follow our patients before we reach a conclusion. In 1951[4a] we reported a 2.3% incidence of reoperation for a tumor in the preserved "other" ovary among women followed after unilateral oophorectomy for removal of a benign ovarian cystoma.

Dysfunctional cystic enlargements, including endometriomas of the ovary, have not been included in this study. Dermoids and adenocystomas have been regarded as the major problem—for reasons with which we are all familiar.

In 1951 the majority of the patients reported had been followed not longer than 5 years. Again at this time, we could report a relatively low figure for reoperation by the observation that among 271 women being followed after removal of one ovary for a benign adenocystoma only 10 or 3.7% have to date developed a tumor indicating removal of their remaining ovary. From the data in Table 3 however it is evident that

TABLE 3

179 CASES AFTER UNILATERAL OOPHORECTOMY FOR BENIGN OVARIAN CYSTOMA

(all followed not less than 10 years)

Neoplasm Indicating Removal Of The Preserved "Other" Ovary

In 2.2%—second tumor was malignant	4 cases
In 5.6%—second tumor was benign	10 cases
In 7.8%—preserved ovary later removed	14 cases

Within 5 years in 7 or 3.8% of cases
After 5 years in 7 or 3.8% of cases

as many women have developed another neoplasm in a single remaining ovary *after* five years as were observed to develop a second tumor *within* five years after their initial laparotomy. Thus a longer period of follow up gives us increased appreciation of the risks involved when we elect to preserve the uninvolved "other" ovary.

THE RISK OF PRESERVING THE OVARY

The real risk of preserving the ovary is well known to both physician and patient. At least in the State of New York, nine women among each 1,000 develop a malignancy of the ovary. Not more than one or two among each nine of these unfortunate women are likely to be cured of their disease. While the majority of the benign ovarian neoplasms develop in younger women, eight among each nine malignancies of the ovary develop after the patient's 50th year. Since more than fifty per cent of ovarian malignancies involve both ovaries simultaneously to preserve even one ovary at the age of 45 would, therefore, seem to preserve almost all of the individuals risk of ovarian cancer.

The fact that only eight women per 1,000 at age fifty will eventually develop an ovarian malignancy is interesting in view of the reported observation[4b] that 40 per cent of ovarian neoplasms first discovered among woman over fifty years of age are benign. Should this figure eventually prove to be an accurate indication of the relative incidence of benign and malignant tumors of the ovary after fifty years of age, it would seem probable that not more than 14 women out of any 1,000 at the age of fifty can ultimately be expected to develop some type of ovarian neoplasm. Since virtually all of the endometrial cysts and all of the dermoids plus 50 per cent of the cystadenomas have been noted to occur before the age of forty-five, it seems evident that nearly 70 per cent of all ovarian neoplasms can be expected to have developed before the patient's forty-fifth year. We are inclined to believe therefore, that the calculated risk of preserving the ovary for a woman 45 to 50 years of age approximates the probability that among each 1,000 such women eight will eventually develop a malignancy and six a benign neoplasm of the ovary.

It will be well if we remember that removal of both ovaries whenever hysterectomy is indicated will save each women so operated from an almost one in 100 chance that she will otherwise develop a carcinoma of the ovary—and the probability of a death that could have been prevented, simply by the prophylactic removal of her ovaries. Before we enthusiastically subscribe to this sort of prophylactic surgery however, we should also consider the possible disadvantages to the woman of removing all functioning ovarian tissue. Certainly we should remember also that evidence of continuing estrogenic effects in the tissues is characteristic of the so-called well preserved, healthy older woman.

Indicated hysterectomy can be accomplished and ovarian function preserved. In vaginal smears[4c] we have noted evidence of the continued production of estrogen years after hysterectomy, in a significantly higher proportion of woman than show evidence of extra pelvic production of estrogens after castration. In our experience, surgical castration results in changes evidencing a marked deficiency of estrogenic effect in 40 per cent of women within five years and in over 50 per cent of women after 10 years. The studies of castrates reported by others[2,8] makes it seem likely therefore that bilateral oophorectomy,

if performed for any reason before the age of the physiological menopause, can contribute to the discomforts, disabilities and eventual cardiovascular deaths of perhaps as many women as now seem destined to develop a malignancy of the ovary.

In conclusion, we would suggest that whenever laparotomy is indicated for enlargement found due to a benign ovarian cystoma at least three considerations should affect our choice of operative procedure.

First, what is this tumor, and what are the chances that it will involve this woman's other apparently uninvolved ovary at some later date?

Second, what are the chances that her other ovary, if not removed now, may develop some other benign or a malignant neoplasm?

Third, how much will it disturb that particular woman if we remove all of her ovarian tissue? Do the advantages outweigh the undesirable effects? Will she necessarily become a castrate, and if so—will she be healthier and grateful—or resent the changes resulting from the operation we elected—supposedly with her best interests in mind?

At this time it seems evident that for each patient, the advisability of preserving or of prophylactically removing her ovaries *should* be carefully considered, until such time as all of the effects of ovarian removal as well as the effectiveness of replacement therapy seem better known.

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Hypnosis in Facial Skin Planing

Hypnosis can alleviate much of the unpleasantness of facial skin planing, according to Dr. James W. Burks, New Orleans.

Dr. Burks reported on the use of hypnosis as an anesthetic during the operation known as dermabrasion in the March Archives of Dermatology, published by the American Medical Association.

"In general, the state of hypnosis sought and attained was one of a mild to medium hypnotic stage. Success here was recognized by a relative lack of visible signs of apprehension . . . and postoperative shock reactions, such as nausea, vomiting, and syncope [fainting]."

Patients who had undergone the operation before thought the discomforts were lessened by hypnosis. All said the operation seemed to take 15 to 25 minutes less than it actually did.

The operation consists of freezing the skin and removing the outer layer in order to improve the appearance, for example, removing scars caused by acne.

Dr. Burks is associated with the division of dermatology, department of medicine, Tulane University School of Medicine and Charity Hospital of Louisiana, New Orleans.

The Role of Pituitary Suppression in Management of Common Thyroid Disorders

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Advances in the knowledge of thyroid physiology during recent years have made possible more successful treatment of common thyroid disorders.

THE PAST TWO DECADES have witnessed a remarkable number of advances in both normal and abnormal thyroid physiology. This progress can be attributed primarily to a shift in emphasis from that of morphology which had almost frozen many of our concepts to that of function, studied by way of the isotopes of iodine, labelled thyroxine, and triiodothyronine as well as with chromatographic and electrophoretic techniques. Most recently the role of immune mechanisms has provided a new and fascinating approach to thyroiditis, giving a more basic understanding of this disease as well as a more logical course of therapy.[1,2,3] Despite these advances, we are still fundamentally ignorant of the most common diseases to which the thyroid is heir, namely the garden variety of nodular goiter (in the absence of enzymatic defect, goitrogen intake or iodine deficiency) and Graves' disease.

Today, the role of antithyroid drugs, radioactive iodine and surgery in the management of thyroid disease has been fairly well standardized. The indications for iodine or Lugol's solution in this area as a method of therapy are few indeed. The role of pituitary suppression in the regulation of thyroid disease, however, has received little emphasis. A number of thyroid disorders may be managed by suppression of the output of thyrotrophic hormone and thyroid gland inhibition.

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The thyroid gland is like other endocrines with both growth and function being highly dependent upon trophic stimulation from the anterior pituitary. Release of thyrotrophic hormone by the pituitary, although governed in part by neural mechanisms mediated through the hypothalamus, is regulated primarily by the level of thyroxine and other thyroid hormones in the circulating blood. This mechanism of regulation has been likened to a servo or feedback mechanism. As a consequence, increases in the level of circulating thyroxine result in immediate cessation in the formation as well as release of TSH by the pituitary with resulting decreased stimulation of the thyroid. In the absence of the pituitary or thyrotrophic stimulus there is atrophy of the normally functioning gland with involution of its epithelium and an associated but almost negligible uptake and turnover of radioiodine. The output of thyroid hormone by such a gland is minimal. This inhibition of the pituitary by *endogenous thyroid hormone* may also be effected by *exogenous thyroid hormone,* such as desiccated thyroid, thyroxine or triiodothyronine.

It is obvious, then, that thyroid hormone in addition to the calorigenic action first demonstrated by Murray in 1890[4] may have an "antigoitrogenic effect" dependent upon its depressing action upon the pituitary. As a consequence, the administration of thyroid hormone may have a two-fold result: (1) a nonspecific calorigenic action of the hormone with presumably an increase in oxygen consumption of cells throughout the body. The over-all effect of this action is widespread, involving growth mechanisms, reducing blood cholesterol, decreasing liver glycogen, increasing protein catabolism as well as influencing other endocrines. The exact mechanism of this action has not been clearly defined other than that of an "uncoupling" oxidative phosphorylation and to cause release of coenzymes, protein carriers, or other substrates needed for energy-transforming processes in in all cells,[5] and (2) suppression of the pituitary output of thyrotrophic hormone as described.

Although thyroid hormone has been used very effectively in the management of thyroid deficiency

states, quite unimpressive has been its role in disorders in the euthyroid patient which have been thought to have some indirect relationship to thyroid metabolism, namely obesity, chronic fatigue, anorexia, menstrual disturbances, habitual abortion and chronic constipation. The lack of there being any additive calorigenic effect in the euthyroid patient is best explained by this thyrotrophin-suppressing effect of thyroid hormone upon the pituitary. Consequently, the administration of two to four grains of desiccated thyroid daily to a euthyroid individual only results in a proportionate decrease in the individual's output of endogenous thyroid hormone. Unless quantities far in excess of those normally required by the body are administered, it is unlikely that an additive calorigenic effect will be noted. There is evidence that the presence of normal thyroid tissue aids in "detoxifying" excess amounts of thyroid hormone, but it is probable that most excesses are excreted by the liver and gastrointestinal tract. Although we can expect exogenous thyroid hormone to be of little therapeutic value when administered to the euthyroid individual for its calorigenic effect, we may still take advantage of its second action, namely that of thyrotrophic hormone suppression resulting in thyroid gland inhibition. The intent of this paper is to review the role of exogenous thyroid hormone administration in the diagnosis and management of those diseases of the thyroid in which hypothyroidism is not the predominant problem. These are hyperthyroidism, nontoxic simple and nodular goiter, subacute and chronic thyroiditis and thyroid cancer.

DIAGNOSIS OF HYPERTHYROIDISM

Recent observations have indicated that in the euthyroid patient the administration of thyroid hormone is followed by a depression in the 24-hour radioiodine uptake to values in the hypothyroid range and an inhibition in the output of endogenous thyroid hormone (measured as serum protein bound iodine). The patient with Graves' disease or toxic nodular goiter has an entirely different response to exogenous thyroid hormone.[6,7] In hyperthyroidism, there is minimal change in the radioiodine uptake and continued output of endogenous thyroid hormone suggesting an autonomy on the part of either the pituitary or thyroid such that there is suppression of neither the output of TSH by the pituitary nor the production of thyroid hormone by the thyroid gland. Because of this characteristic response, the administration of thyroid hormone has been of value as a diagnostic aid in patients with equivocal symptoms and findings of Graves' disease. The patient with Hashimoto's thyroiditis may serve as an excellent example. In addition to symptoms suggesting mild toxicity, there may be a diffusely enlarged thyroid with both the protein bound iodine and I^{131} uptake at upper limits or slightly exceeding the upper limits of normal. The administration of either desiccated thyroid (three grains daily) or L-triiodothyronine (100 micrograms daily) for eight to ten days will cause suppression of the 24 hour radioiodine uptake in the euthyroid patient to a "hypothyroid" range. In contrast, the patient with hyperthyroidism will have no appreciable change or suppression of less than 50% of his previous radioiodine uptake. The fall in the PBI conversion ratio may prove to be even more sensitive since there is a fall to hypothyroid ranges (below 10%) in the euthyroid individual while there is maintenance of the previous elevated level in hyperthyroidism.[8] Similarly, in contrast to the euthyroid patient, there is no fall in the serum protein bound iodine (endogenous thyroid hormone output) in patients with hyperthyroidism following the administration of L-triiodothyronine.

As in every laboratory test, some caution must be exercised in its evaluation since this "trait" has also been found in families and siblings of patients with Graves' disease in whom there is no overt evidence of hyperthyroidism. In addition, this characteristic may persist in patients who have been treated for hyperthyroidism and rendered euthyroid either by partial thyroidectomy, radioactive iodine, or antithyroid drugs. This test also cannot be used with any reliability if the patient has been on antithyroid drugs or Lugol's solution at the time of evaluation.

MANAGEMENT OF SIMPLE AND NODULAR GOITER

Despite the physiologic advances in the understanding of thyroid disease during the past few decades resulting in the addition of iodine to diets as well as the elimination of known goitrogens, the problem of the nontoxic, simple, and nodular goiter is still common and frequently perplexing. Most goiters in the United States today are not associated with iodine deficiency and yet the incidence of nodular goiter remains high and seems to be a function of age as well as environmental and hereditary factors. Iodine administration today would seem to have little role in the management of simple goiter. Those individuals who have a true deficiency of iodine can be readily identified by their radioiodine

uptake; this should be similar to that in hyperthyroidism whereas the thyroid hormone level (BEI) will be within normal ranges. In euthyroid patients, treatment of simple goiter has been effective by reducing pituitary stimulation through the administration of thyroid hormone. In general, when the goiter is of recent duration, soft in character, and diffuse in type, this treatment has been followed by regression. Such therapy with thyroid hormone would seem particularly desirable in the younger age groups since the usual sequellae of diffuse enlargement of the thyroid is that of nodular goiter later in life. The presence of a nodular goiter creates considerable unrest in the minds of most surgeons and even a few internists. As a consequence, in order to exclude the possibility of carcinoma, surgical excision is advised. By administering suppressive doses of thyroid hormone, perhaps the consequences of relative thyroid deficiency can be avoided. Certainly, a nodular goiter developing despite supplemental thyroid treatment would have a much greater significance and more likely represent a truly autonomous neoplasm. The experiences of Greer and Astwood,[9] and of Cassidy[10] et al. have disclosed a good response to therapy in over 40% of patients with a diffuse goiter, in approximately a third of patients with multinodular goiter, and in over a third of the patients with "single nodules". In general, most complete remissions, when they have occurred, developed within three months and none required more than six months. In the management of long-standing nodular goiters which are so likely to be accompanied by degenerative changes and repair reactions with fibrosis or cyst formation, the response is likely to be negligible. Although there may be reduction in total mass of thyroid tissue, this is usually at the expense of the actively functioning thyroid parenchyma with little change in the nodules. It should be emphasized that in view of the "dependent nature" of certain types of thyroid cancer (see discussion on thyroid cancer), the diminution in size of a nodule cannot be employed as an index of benignancy.

As mentioned earlier, the incidence of carcinoma in the nontoxic nodular goiter has resulted in many of these patients being operated upon to exclude carcinoma, particularly in the younger age groups. An additional few of these glands are removed because of gross size and their associated pressure effects. Most texts, however, make little comment regarding the subsequent management of these patients except that if "all nodular tissue is removed" and a few grams of normal-appearing thyroid are allowed to remain, the patient should remain well. Actually, the surgical removal of a nodular goiter (except for the occasional case of the benign neoplasm) only removes the manifestations of the underlying disease. The inherent factor responsible for the goiter (unless there has been a specific deficiency which can be corrected) remains operative. Since in most instances the goiter is a compensatory phenomenon, loss of a portion of the gland must be considered to provide an even greater goitrogenic stimulus then previously existed. As a result, the recurrence rate of nodular goiter after partial thyroidectomy for nodular goiter varies between 5 and 22%.[11,12] Many patients have undergone two to three operations for recurrent disease. The problem of a recurrent nodular goiter is again that of attempting to differentiate carcinoma from an adenomatous nodule. However, the problem is usually much more serious because of a higher operative morbidity and the difficulty in differentiating recurrent goiter and scar formation from invading thyroid cancer. For this reason, it has been our practice to place all patients who have been operated upon for nodular goiter and who have a life expectancy of greater than 15 years upon replacement doses of desiccated thyroid. The period of observation is as yet too brief to evaluate such therapy. This would seem, however, to be a reasonable means of preventing the problem of recurrent goiter. In Cope's experience of approximately 200 patients, only four developed recurrent nodules under such therapy.[13] In these the dosage was either inadequate or the nodules were autonomous.

There is a small group of individuals in whom there seems to be an intrinsic biochemical defect in the synthesis of thyroid hormone as the result of which there develops a nodular goiter early in life.[14,15,16] These individuals usually have a radioiodine uptake in the hyperthyroid range; however, their metabolic state is more often in the hypothyroid range and a few goitrous cretins fall into this category. Detailed studies of these patients have disclosed various metabolic defects in the thyroid including an inability to organify trapped iodine, a defect in deiodination of iodotyrosines and possibly impairment in conjugation of iodotyrosines. Not only do these patients require substitutional hormonal therapy for prevention of their nodular goiter, but because of the apparent increased incidence of thyroid cancer in goiters of this type, it is also most important that they remain on thyroid hormone for life.

MANAGEMENT OF SUBACUTE AND CHRONIC THYROIDITIS

Another indication for the use of thyroid hormone is in the management of thyroiditis. The eponymical nomenclature associated with the different types of thyroiditis, for example Hashimoto's, Riedel's, De-Quervain's (subacute), has resulted in considerable confusion in their identification. For practical purposes, thyroiditis can be divided into two problems, that of Hashimoto's with its characteristic lymphocytic infiltration and oxyphilic thyroid cell, and that of subacute thyroiditis which has fairly distinct clinical, biochemical and pathological manifestations. Riedel's thyroiditis, if it exists at all, is very rare and cannot be distinguished from invading carcinoma so that there is never a need for making a clinical diagnosis of this disease.[17]

Hashimoto's thyroiditis as a form of goiter has long been recognized but only recently has its frequency been emphasized. Approximately 10% of the people treated surgically for thyroid enlargement have their goiter on the basis of chronic thyroditis. This disease is characteristically seen in females during the fourth and fifth decade. The thyroid is usually diffusely enlarged and may be accompanied by local pressure symptoms. Rarely is there any significant pain or tenderness. The gland is quite characteristic on palpation, being firm to rubbery hard, and retaining the over-all configuration of the normal thyroid. The surface is somewhat irregular or bosselated in outline. Most of these patients will be euthyroid although with long-standing disease, hypothyroidism may develop. This disease is not infrequently the cause of goiter in the female in her early teens. A patient with hypothyroidism and a diffusely enlarging thyroid gland (not on an antithyroid drug) most likely has Hashimoto's thyroiditis.

From the etiological standpoint, this disease would seem to be due to an autoimmunization by way of autogenously released thyroglobulin.[1] Thyroid injury and release of thyroglobulin from the follicles results in antibodies being produced against thyroglobulin and further damage and destruction of the thyroid.[1,2,3] With subsequent damage to more follicles because of this inflammatory reaction, more thyroglobulin is released which further enhances the immune response. The slow but ensuing destruction of the thyroid leads to a compensatory hyperplasia of the remaining intact gland. Thyroid enlargement occurs on the basis of lymphoid infiltration and hypertrophy within the gland as well as hyperplasia of the remaining thyroid epithelium.[18] Experimentally, this disease has been produced very nicely in rabbits by injection of homologous thyroglobulin.[1]

It is because of this probable mechanism of production and associated changes in gamma globulin that some laboratory confirmation of the clinical diagnosis can be made.[19] The serum flocculation tests such as thymol turbidity, zinc sulfate turbidity and collodial gold have occasionally been used. These findings are significant in the absence of liver disease or other causes of increased gamma globulin. The abnormal protein may also give a discrepancy between the protein bound iodine and butanol extractable iodine, the former being relatively high. Finally, three serological tests demonstrating sensitivity for thyroglobulin are available in certain areas. These are (1) complement-fixation test, (2) tanned red cell test, and (3) a precipitin test.[20]

As a result of these studies, a logical treatment of this disease is the administration of thyroid hormone in replacement doses. The subsequent inhibition of thyrotrophic hormone production results not only in decreasing the formation of thyroglobulin and further progression of the inflammatory reaction but, in addition, regression of the hyperplastic changes in the thyroid and decrease in size of the goiter. The response to treatment is usually slow, often requiring three to six months or longer and in about one-half the cases the goiter disappears entirely while in others there is usually some reduction in size of the gland.[21] With few exceptions, the rapidity and degree of reduction can be correlated with the presence of fibrosis. Treatment with thyroid is practical and preferable to thyroidectomy except in rare cases of enlargement and pressure symptoms. It is of interest that the administration of thyroid hormone may reverse the abnormal proteins as well as the serological findings. Since this is a relatively new approach to the management of this disease, the long-term results in terms of the gland's ability to recover and resume normal function are unknown. It is known, however, that without specific treatment the histologic changes characteristic of thyroiditis may persist for many years. The role of surgery is that of diagnosis and is not specific therapy unless there are compression symptoms. Hormonal treatment is recommended particularly in chronic thyroiditis following partial thyroidectomy since the incidence of hypothyroidism in this group is approximately 30%.[22]

Particularly fascinating in this disease is the possible relationship to cretinism. The development

of such an immune mechanism in the mother might well explain the sporadic incidence of cretinism.[23] By implication, this could well be controlled by appropriate hormone therapy.

SUBACUTE THYROIDITIS

In contrast to the chronic or Hashimoto's thyroiditis and as implied by terminology, subacute thyroiditis is much more dramatic in onset. Recognition of this disease should not be difficult. Subacute thyroiditis may occur in either sex. There is usually no preceding history of thyroid disease or thyroid enlargement. Pain in the region of the thyroid or pain referred to the ear or jaw usually heralds the onset. Systemic symptoms of varying degree, usually malaise and low-grade fever, may accompany the local manifestations. On palpation the gland is firm to hard and quite to exquisitely tender. The entire gland may be involved when the patient is first seen, depending upon the length of illness, or only one lobe may be involved and the inflammation noted to extend to involve the isthmus and opposite lobe during the course of a few days to a few weeks of observation. An elevated protein bound iodine accompanying a depressed radioiodine uptake as well as an elevated sedimentation rate are almost pathognomonic for this disease. At times, thyroid cancer may be mimicked when the inflammatory process is confined to one lobe and the over-all course is somewhat indolent. Confirmation of the diagnosis by these laboratory aids is then most reassuring.

Although the disease is probably viral in etiology, its destructive action on thyroid parenchyma may also be associated with thyroglobulin release and autoimmunization. Previously, treatment with steroids, x-ray therapy, goitrogens and antibiotics has been reasonably successful. We have been most impressed, however, with the efficacy of aspirin in large doses. Whether its beneficial effect is due to its suppressive action upon TSH or is merely that of analgesia is unknown. In view of the possibility that some of its beneficial effect may have been through suppression of TSH stimulation[24] and reducing further destruction, we have also placed a few of these patients on replacement doses of thyroid hormone. In these individuals we have noted a seemingly more complete recovery of the gland following the concomitant use of desiccated thyroid or triiodothyronine.

MANAGEMENT OF THYROID CANCER

A number of experimental as well as clinical observations have supported the concept that papillary and alveolar adenocarcinoma of the thyroid are not strictly autonomous in their behavior but are dependent, in part at least, upon thyrotrophic hormone for development, growth, and function. As a result, stimulation of thyroid cancer in the human by thyrotrophic hormone has been shown to be followed by enhancement of both function as well as growth of the neoplasm. Conversely a depression of thyrotrophic hormone output has also been followed by depression of function on the part of the tumor and even more important, a decrease in gross size.[25] This concept when applied to the problem of thyroid cancer would seem to be of potential value both prophylactically and therapeutically. If thyrotrophic hormone can promote the development of human thyroid cancer, then a decrease in its output would be of prophylactic value in those circumstances in which there is an increase in incidence of thyroid neoplasm. This would seem to be particularly true in those goitrous cretins and individuals with a nontoxic, nodular, hyperplastic goiter in whom the defect in thyroid hormone synthesis results in constant TSH stimulation of the thyroid and an increased incidence of thyroid cancer.

In patients having been operated upon for thyroid cancer, in order to avoid any "stimulation" of residual normal thyroid tissue that might be subject to carcinomatous change or any residual thyroid neoplasm, it is essential to administer adequate replacement doses of exogenous thyroid hormone. Thus both normal and carcinomatous tissue would receive minimal pituitary stimulus and conceivably might lie dormant for years.

The role of thyrotrophic hormone depression by means of exogenous thyroid hormone in the treatment of inoperable recurrent or metastatic thyroid cancer needs further exploration. In our experience, with appropriate administration of the hormone, there has been regression of primary tumor, lymph node, pulmonary and bony metastases in selected patients.

In the management of thyroid cancer, when it is desirable to have more than one criterion of the adequacy of replacement therapy, L-triiodothyronine has several advantages over other thyroid hormones by virtue of the immediacy and duration of its action as well as its lack of firm binding by serum proteins. Thus, exogenous thyroid hormone in the form of desiccated thyroid or thyroxine will appear as protein bound iodine whereas L-triiodothyronine will not. This biochemical characteristic permits a quantitative measurement of the endogenous thyroid hormone as protein bound iodine while the patient

is being maintained on L-triiodothyronine. With adequate dosage, the serum protein bound iodine as well as the uptake of radioiodine fall progressively to hypothyroid ranges.[26]

PREPARATIONS AND DOSAGE

At the present time desiccated thyroid, crystalline thyroxine, and L-triiodothyronine are available as sources of thyroid hormones.[27] Crystalline thyroxine possesses little or no advantage over crude thyroid preparations except for its being available for parenteral administration. Desiccated thyroid is quite adequate as long as it has U.S.P. specifications and is reasonably fresh. Despite the fact that L-triiodothyronine has recently been advocated for a number of disorders of the "hypometabolic type" it also possesses no advantages over desiccated thyroid except for more immediate action and a much more rapid turnover. This would seem to be of no value in treatment of long term thyroid deficiency states. Its lack of combination with serum proteins may be of some value in the management of recurrent thyroid cancer for the reasons discussed.

In the administration of thyroid hormone, it is probable that from two to three grains of desiccated thyroid or 75 to 100 micrograms of L-triiodothyronine will usually achieve adequate replacement therapy. In those individuals in whom complete suppression of thyrotrophic hormone is mandatory, as in residual or inoperable thyroid carcinoma, this dosage has been increased to four to six grains of desiccated thyroid or 150 to 200 micrograms of L-triiodothyronine depending upon the patient's tolerance. Due to the length of action of all preparations, this dosage need be administered only once daily.

SUMMARY

Since growth and function of the thyroid gland are dependent primarily upon thyrotrophic hormone from the anterior pituitary, suppression of TSH output may be of value both diagnostically and therapeutically in certain thyroid disease. Thyrotrophic hormone suppression can be accomplished by utilizing the "antigoitrogenic" properties of thyroid hormones. This approach to diseases of the thyroid would seem to have particular application diagnostically in certain cases of hyperthyroidism and therapeutically in selected cases of simple and nontoxic nodular goiter, thyroiditis, and thyroid cancer.

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Small Cars—New Ailments

The switch from a big car to a little one may cause bodily pain to a driver, but he responds with remarkable perseverance. Dr. Jerome F. Strauss, Jr. described new ailments related to changes in driving habits in a letter published in the May 28th Journal of the American Medical Association.

Dr. Strauss said he had seen four patients in the past six months who had developed pain in the chest, hip, or back a day or two after they began using a small car.

"Once the syndrome was well established . . . its relation to operation of the vehicle was obvious."

"At this stage, symptoms began to occur while the patient was driving the automobile or shortly thereafter and were usually relieved by abstinence from driving.

"Cessation of symptoms was never immediate, however, and might require as long as two or three weeks to subside, probably because, once the diagnosis was established, the patients were content to live with their discomfort."

Difficulty in operating the small cars is not limited to persons six feet tall. Only one of his four patients was more than 5 feet, 10 inches.

Two of the patients had acquired one of the larger imported sports cars with manually operated gear shift and without power steering. The other two were driving one of the new small cars.

The chest pain results from muscles in that area being used in a fashion to which the driver is not accustomed. Perhaps the most important cause of the hip and back symptoms is the limitation in footroom due to intrusion of the wheel well into the front compartment compelling the driver to sit with the lower half of the body rotated in order to secure the maximum available space.

"While it is unlikely that the individual practitioner will see many cases of 'Jaguar chest' or 'Corvette hip,' the increasing popularity of smaller automobiles and the renaissance of the gearshift lever should be a warning to the clinician to be on the lookout for new musculoskeletal syndromes."

Peripheral Vascular Surgery

Indications and Techniques

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Much of the disability caused by obstruction in the aorta, iliac, femoral, or popliteal arteries can now be relieved or prevented by vascular surgery in the average community hospital.

DURING THE PAST TEN YEAR PERIOD tremendous strides have been made in peripheral vascular surgery. This progress is directly related to the development in the field of open arterial procedures, the use of synthetic vascular grafting material, the technical advances in developing atraumatic vascular instruments, and the advances in various types of anesthesia, especially hypothermia.

Prior to 1947 a statement that open arterial endarterectomies or bypass grafting of the abdominal aorta, iliac, femoral or popliteal vessels would be possible in the average community hospital would have been received with open pessimism.

The development of the knitted Dacron graft by Michael de Bakey has in a sense revolutionized arterial surgery so that major vascular procedures can be done in any hospital where an adequate blood bank and proper anesthesia is available. These grafts can be fashioned to mimic any size vessel, bifurcated, straight, etc. Their reactivity with the tissues is minimal and they become rapidly incorporated into the vascular system by a process of endothelialization from each end of the graft and rapid scarification around the graft. Such grafts will probably prove to be stronger and more durable than the actual blood vessels that they are connecting.

Vascular clamps now available with the serrated edges cause little to no trauma to the blood vessels and prevent the usual crush injury to the vessel wall which occurred prior to their development. This means that any major blood vessel can be clamped, opened, investigated and then closed with atraumatic arterial silk without injury or later complication due to injury.

The use of hypothermia in major vascular surgery has been proven many times. The blood pressure is reduced, the pulse rate and general metabolism is diminished, the brain can stand longer periods of anoxia, and, in general, the margins of safety are increased. Hypothermia can be used in any age group and with great safety in the elderly patient. Reaction to hypothermia is minimal. Methods of introducing hypothermia vary from cooling automatic blankets to simple immersion in an ice bath with an intrarectal and intra-esophageal electrode for temperature determination. Usually the temperatures are lowered to levels of approximately 30 to 31 degrees centigrade, and care is taken to prevent a "drift" of this temperature below 27 degrees centigrade, since cardiac arrhythmias frequently occur below that level.

Operating under conditions of hypothemia is done with considerable ease by the surgeon since smaller venous bleeders are non-existent, the distal abdominal aorta pulsates slowly and crossclamping of the distal aorta can be performed for periods up to two hours below the renals. Whereas hypothermia is certainly not mandatory it is helpful in the poor risk, elderly, or hypertensive patient, undergoing a major vascular procedure.

EVALUATION OF THE PATIENT WITH PERIPHERAL VASCULAR INSUFFICIENCY

The patient presenting with a peripheral vascular deficit should be given a careful general examination and history to determine the presence or absence of associated diseases, diabetes mellitus, previous or co-existent coronary heart disease, and a careful questioning to determine the degree of disability.

A typical history is that of a late middle aged white male who notices pain in his calves after exercise. This improves with rest and recurs with exercise. This is a typical pain-rest relief pattern and almost invariably occurs with significant periph-

eral vascular insufficiency. Patients may also complain of pain radiating into the hip and upper thigh area and numbness over the feet. He may have persistently infected ingrown toenails and will usually have absence of normal growth of hair over the dorsum of the foot and occasionally atrophic skin changes over the same area. The elderly patient may complain of difficulty with erection indicating an aortic obstruction proximal to the bifurcation.

Specific vascular investigation includes a careful abdominal examination to rule out the possibility of abdominal aortic aneurysm with care to palpate the left side of the abdomen slightly above the umbilicus. This is the region where the aneurysm is located although it might at first seem too high. The aortic bifurcation occurs just below the level of the umbilicus and an aneurysm usually presents to the left of and above this point.

Fig. 1—Bifurcation graft of knitted Dacron—Note the crimping which allows elasticity.

The femoral pulses should be carefully palpated. They should be of good quality and should have a definite thrusting motion. Of great significance is a decrease in the femoral pulse on one side with a normal femoral pulse on the other. This quite obviously indicates common femoral or common iliac artery obstruction on the side involved. If good femoral pulses exist the popliteal should be carefully palpated. A good femoral and an absent popliteal with absent pedal pulses indicates an obstruction somewhere in the femoral canal. The popliteal pulse may be difficult for one to palpate especially in the obese patient. However, if good pedal pulses can be felt it is not necessary to waste time palpating the popliteal. Absent femoral pulses bilaterally indicate rather severe distal aortic obstruction of the so-called Leriche type.

The patient with popliteal pulses present bilaterally but no pedal pulses on one side or the other are characteristic of the rather advanced peripheral arteriosclerotic diabetic type of obliterative disease for which a direct arterial approach is not generally acceptable. In this type of patient the popliteal artery at its bifurcation into the tibial vessels is usually obstructed and the arteriolar vessels leading to the muscles and skin are also obstructed. A direct arterial approach is usually not possible unless, as is rarely the case, a segmental obstruction of the distal popliteal artery occurs which can be removed as an endarterectomy. In general the advanced markedly

Fig. 2—Straight graft—This may be cut to any desired length without fraying of the ends. Can be re-autoclaved.

peripheral obliterative disease is best treated with a lumbar sympathectomy.

AORTOGRAM

The use of arteriograms or aortograms to further evaluate the patient has been proven on many thousands of patients to date. This procedure is safe, reliable, and easily performed. The aortogram is used in those patients having disease above the femoral arteries, that is, common femoral, iliac vessels or distal aorta. A patient having excellent femoral pulses is certainly not a candidate for aortogram but should be considered for a femoral arteriogram, if distal obliterative disease is thought to be present.

The aortogram is performed under local anesthesia with the patient lying flat in the prone position. A test dose of 1 c.c. of Hyapaque and 1 c.c. of 50% Urokon is given intravenously immediately prior to the procedure to determine sensitivity. The patient is also given intravenous Demerol according to his size and weight immediately prior to the procedure to decrease the conscious pain due to arteriospasm.

Once this has been performed the cassettes are placed in overlapping position so that the distal aorta and upper femoral vessels will be demonstrated. Novocaine or Pontocaine is injected two finger breadths below the 12th rib and approximately four finger breadths from the spinous process, directed medially until the body of the vertebra is encountered. The needle is then marched down the body of the vertebra injecting small amounts of 1% Pontocaine along the way until the bottom of the vertebra is felt.

At this point the aorta is encountered and can frequently be felt as a transmitted pulsation through the long No. 16 or 18 aortogram needle. A gentle thrust of the needle is performed and entrance into the aorta is immediately identified by the bright pulsatile bleeding which occurs. A Kelly clamp or other suitable clamp is then placed at the skin edge so that the needle will not change position and approximately 35 c.c. of a half Hyapaque, half Urokon, mixture is rapidly introduced. Instructions to "shoot" are given to the x-ray technician by the physician when the last 5 c.c. of mixture is being given. The needle is then rapidly removed from the aorta and a small bandaid placed over the puncture site.

The immediate reaction of the patient is usually one of pain in his buttocks and legs, occasionally pain in the stomach due to the passage of dye into the celiac vessels, superior or inferior mesenterics. This pain usually lasts thirty seconds to one minute and is usually severe unless intravenous Demerol is given as previously described. A delayed reaction occurring approximately three minutes after the initial introduction of dye is one of shortness of breath and nausea due to the venous return of the dye. The mixture of Hyapaque and Urokon is used because Hyapaque carries with it practically no reactivity whereas Urokon occasionally produces a sensitivity reaction. Urokon, however, is a better contrast media and is therefore mixed with the Hyapaque. In doing

Fig. 3—Normal aortogram. Note visualization of the renal arteries, smooth contour of the aorta and its bifurcation, and demonstration of unobstructed flow into the femoral and hypogastric vessels.

over seventy-five of these procedures using such a mixture there have been no reactions of significance noted.

The safety of the aortogram can be attested to by the fact that in experienced hands complications are seemingly unheard of. The puncture site in the aorta seals rapidly with practically no extravasation of blood. The aortogram should clearly demonstrate the distal aorta, possibly even the renal vessels. This then shows the inferior mesenteric, the bifurcation, the common iliac and femoral vessels, the hypogastric vessels and the run-off pattern of the dye in the femoral vessels. Any obstruction or partial obstruction in this region should be clearly demonstrated.

A patient with poor femoral arteries may have so-called "moth-eaten" iliac or obstructive aortic configuration—that is, thickened intima with atheroscleromatous plaques presenting as marked kinking and narrowing of these vessels. Such a patient certainly should be considered as a candidate for direct arterial surgery. The occurrence of a distinct segmental iliac artery obstruction with good collateral filling distal to this obstruction may be present indicating that a segmental endarterectomy will cure the patient of his obstructive disease. A normal aortogram is shown in an accompanying diagram.

Fig. 4—Aortogram revealing complete obstruction of the left common iliac. This patient had successful bifurcation and left common iliac endarterectomy.

Arteriograms of the femoral vessels should be performed where good femoral pulses are present and the obstruction is thought to be distal to this point, probably in the femoral artery. If such a femoral arteriogram demonstrates obstruction with collateral filling of the popliteal artery below, this would indicate that either an endarterectomy or a femoral to popliteal artery bypass graft could be performed with a successful reestablishment of blood flow to the extremity. If the femoral arteriogram demonstrates absence of collateral filling below the block then this would seem to indicate a poor prognosis although it is our feeling that a popliteal artery should still be explored surgically to determine whether or not there is patency.

STANDARDIZED PERIPHERAL VASCULAR OPERATIVE PROCEDURES

A—Aortic Obstruction.

This section should logically be started at the aorta and its bifurcation and continued down to include peripheral vessels in the legs and feet. The distal aorta at the bifurcation is frequently the site of obstruction or the so-called Leriche syndrome. This apparently occurs because of stress in this region as the blood changes its velocity and direction. Depositions of cholesterol and saturated fatty acids occur in this region causing obstruction to the iliacs and distal aorta. This syndrome is characterized by bilateral leg, calf and thigh pain and difficulty with erection.

A diagnosis is established by the absence or decrease in femoral pulsations and the demonstration by an aortogram of obstructed or partially obstructed distal aorta and common femoral vessels. The decision to perform direct arteriotomy then depends on the general condition of the patient, the presence or absence of associated diseases and general medical evaluation characteristically given prior to any major operation.

The patient is given several days of a broad-spectrum antibiotic. Cleansing enemas are used the day prior to operation, and the entire abdomen and legs are prepared from the nipple line to the mid-calf region. On the day of operation a Foley catheter is inserted after the patient is asleep. A midline incision is made from symphysis to xiphoid, the peritoneum is entered and a general exploration is performed of abdominal viscera as with any abdominal procedure. The small intestine is then packed outside the abdomen in a wet towel or plastic bag. The posterior mesenteric root is opened and the bifurcation of the aorta easily exposed. Dissection above and below is performed to identify the inferior mesenteric artery which is usually ligated and divided. Care is taken to avoid injury to the left ureter. Further upward dissection reveals the renal veins. Palpation of the aorta and its bifurcation reveals the extent of disease and the degree of involvement of arteries distal to the hypogastric vessels. In general it is possible to consider an endarterectomy where segmental obstruction exists and it is rare that grafting is necessary.

The operator passes his finger around the aorta below the renal vessels with care not to inadvertently

tear the vena cava and a de Bakey curved clamp used to occlude the aorta. Immediately prior to clamping, several c.c. of Heparin solution are introduced, the clamp applied and several small vascular clamps are then applied distally to the iliac arteries. A longitudinal incision is made just above the bifurcation and over each iliac vessel. The dissection plane is immediately evident between the atheroscleromatous collection and the normal wall of the vessel and this can be developed with ease using a submucous spatula type of instrument. Once the plane has been adequately developed above, below and circumferencially the plugs of atheroscleromatous material are removed. Calcified plaques are gently lifted off the posterior wall. Effort is made to carry the endarterectomy as high as the renal vessels; however, the dense obstructing type of atheroscleromata do not generally occur above this point.

Fig. 5—Aortogram revealing obstruction of left common iliac but with good collateral filling of the distal iliac and proximal femoral vessels. This indicates a segmental occlusion which carries a good surgical prognosis.

At the completion of this procedure, once the material has been adequately removed, the arteriotomies are closed using continuous atraumatic No. 3 or 40 silk, and the distal clamps are opened. This allows retrograde filling of the aorta and significant bleeding from the arteriotomies may be controlled. The proximal clamp on the aorta is then opened slowly allowing the pulsatile aortic stream to enter the bifurcation. After several minutes the clamp is removed completely. A pulse will immediately be apparent within the femoral vessels. It has been our policy to perform a bilateral lumbar sympathectomy at this time since the lumbar sympathetic chain, that is, the third, fourth, and occasionally the second ganglia and intervening chain can be reached with ease through this operative approach. This decreases arteriospasm and possibly decreases the chances for thrombus formation.

If adequate arterial flow has obviously been obtained it has not been our policy to heparinize or anticoagulate the patient but in the elderly patient or one with a history of coronary disease, permanent anticoagulation is performed.

The patient is continued on broadspectrum antibiotics for several days, given transfusions as indicated, and usually made to sit up during his second postoperative day. Prolonged ileus is occasionally a complication. This can be obviated with frequent enemas, the use of nasogastric suction, etc.

B—Iliac Artery Obstruction.

The treatment of unilateral iliac artery obstruction is exactly the same. In this case the examiner will find a deficient femoral pulse on one side with a good femoral pulse on the other. The question might arise as to the obstructed condition of the femoral artery on the side involved and therefore a small groin incision should be performed for exploration of the femoral artery. If this vessel is felt to be soft and pliable then higher segmental obstruction can be presumed to exist and the abdominal incision made. Iliac endarterectomy of the segmental type can then be performed in the same fashion as described above. A sympathectomy is also done in this case for similar reasons.

C—Femoral Canal Obstruction.

If good femoral pulses are present and an obstruction exists in the femoral canal—Hunter's canal—then the first procedure is a lumbar sympathectomy on the side involved followed by a popliteal artery exploration. This is done with an incision in the popliteal crease, palpation and inspection of the popliteal artery to determine whether or not it is soft, pliable and patent. If necessary a small arteriotomy in the popliteal vessel can be performed and if back bleeding is present then it is presumed

to be adequately patent. Accordingly, a femoral to popliteal bypass graft is performed using knitted Dacron material. This is preferred to the endarterectomy which is a blind procedure with possible damage to the femoral artery. Also, the femoral vessel is difficult to adequately endarterectomize because of its comparatively small size. For this reason we prefer the bypass graft using an adequately lumened knitted Dacron tube with subcutaneous tunneling using a long Kelly clamp. This procedure can be done with a minimum of trauma, a small popliteal incision, a small femoral incision and in general excellent results. Again we feel that a sympathectomy

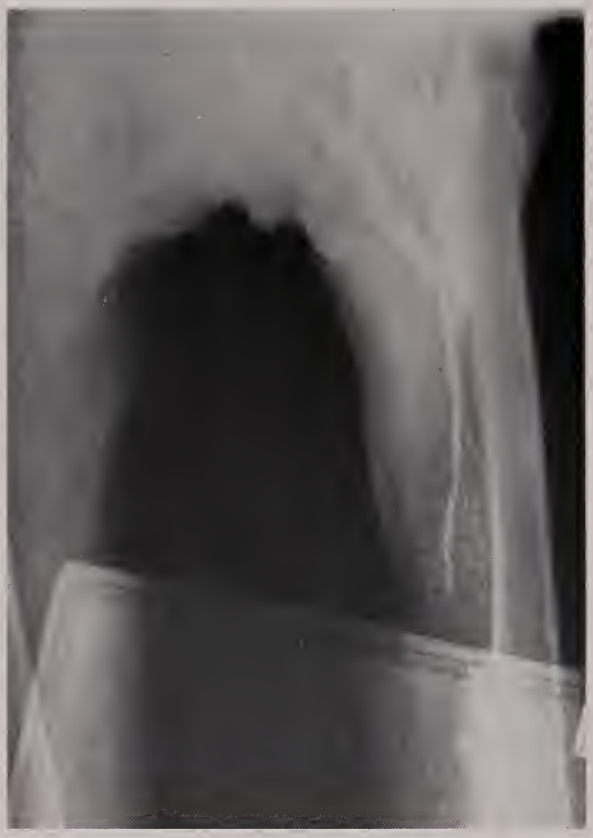

Fig. 6—Left femoral arteriogram demonstrating a block of the femoral artery in Hunter's canal. Note good collateral filling of the popliteal artery indicating segmental obstruction with good surgical prognosis.

helps considerably in the immediate postoperative period because of the absence of arteriospasm and to insure patency of the graft. It will be immediately apparent whether or not the graft is working since pulsations can be felt in the graft and indeed in the distal popliteal vessel. Bleeding through the interstices of the graft occur for several minutes following opening of the vascular clamps but these quickly clot and do not require worrisome consideration. The pulsations within the graft will be adequate as long as the distal popliteal and tibial vessels are patent. If there is significant obstruction of these vessels then clotting of the distal graft will occur quite rapidly with cephalad progression of the clot. If this occurs at the time of operation, it is obvious that an adequate outflow tract obstruction is present. This must then be investigated and if possible an endarterectomy of the popliteal vessel performed. Heparinization is done proximal to the vascular clamps on the femoral artery and especially distal to the popliteal clamp so that clotting in the distal vessel does not occur during the anastomosis of the

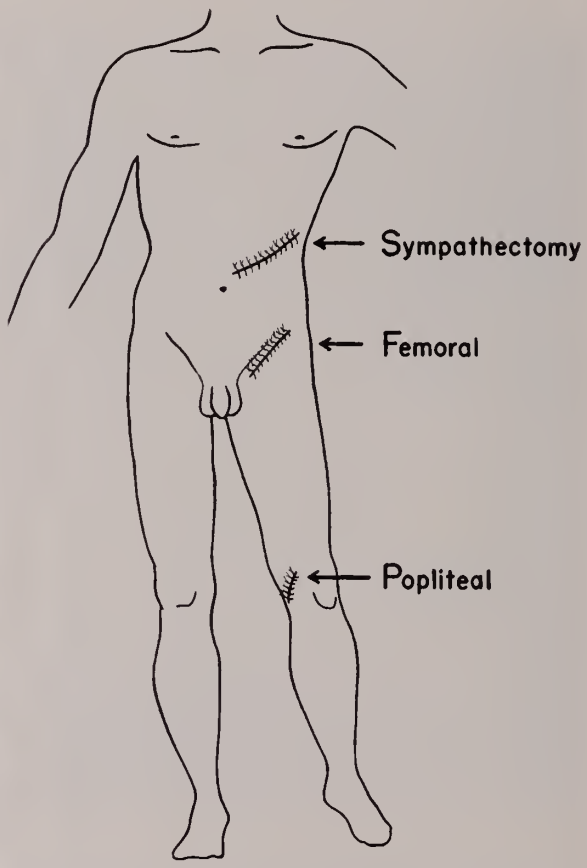

Fig. 7—Schematic drawing indicating the incisions and their location in a patient with femoral artery occlusion. The sympathectomy is performed first followed by popliteal exploration. If the popliteal artery is patent and soft a femoral-to-popliteal bypass graft is inserted. See text.

graft. Excessive heparinization is counteracted by the use of Protamine or other suitable agents.

The graft is observed in situ for a period of ten to fifteen minutes. At the end of this time if bleeding is controlled and pulses are adequate then closure is performed using interrupted catgut and silk sutures.

An irrigating solution of penicillin and strepto-

mycin is used at the femoral and the popliteal region to help insure prevention of infection at the graft site.

Almost immediately it is apparent that the graft is working because pedal pulses will once again be palpable. These pulses may be diminished at first but during the course of the next few days, as arteriospasm becomes decreased, pulses return. We have seen several patients who actually developed edema of the ankle and lower leg because of the increased blood supply to this area and required elastic stockings temporarily.

SUMMARY

The advances in peripheral vascular surgery during the past ten years are mentioned with emphasis on improvement in anesthesia, the development of synthetic grafting materials and non-traumatic vascular clamps, and a standardization in the indications and technique of operations upon major blood vessels. Arterial insufficiency either at the aortic bifurcation or more peripherally is usually indicated by clinical signs of claudication or continual aching of the muscles distal to the point of blockage. Usually, a diagnosis can be established by palpation of the pulses which may indicate the level of the obstruction. A good femoral artery but an absent popliteal artery indicates blockage in Hunter's canal. An absent femoral artery on one side indicates blockage higher up in the iliac or common femoral vessel. Absence or decrease in both femoral pulses indicates blockage of the distal aorta—a so-called Leriche syndrome.

During the past ten years standardization in operative techniques have slowly become established and now seem to be directed at removal of the plug of atheroscleromatous material or endarterectomy, a bypass grafting procedure, and a concomitant lumbar sympathectomy. The use of arteriograms and aortograms prior to surgery helps to establish the definitive diagnosis in most instances. However, occasionally the popliteal artery will be patent which is not evident by arteriography, and for this reason we perform a popliteal artery exploration. A patent popliteal artery with adequate retrograde flow will indicate patency, and it may then be assumed that a femoral to popliteal artery bypass graft will be competent.

The patient having symptoms of claudication usually has a progression of his disease. For this reason early diagnosis and attempt at definitive surgery is urged. A gangrenous foot is irretrievable, however, such a patient, if seen previous to the onset of gangrene, has a good chance of significant benefit by arterial surgery.

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Hyperimmune Vaccinal Gamma Globulin in the Treatment and Prophylaxis of Eczema Vaccinatum

A Report of Three Cases

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Vaccinal complications are dangerous and some have carried a high mortality. Three interesting cases are presented and the successful treatment with hyperimmune vaccinal gamma globulin is described.

THE PURPOSE OF THIS REPORT is to emphasize again the potential dangers of smallpox vaccination in any child suffering from atopic eczema, and the danger of sibling vaccination under these circumstances.

Three cases are presented which demonstrate the use of hyperimmune vaccinal gamma globulin in the treatment of a severe and a moderate case of eczema vaccinatum, and as a prophylactic measure in a third patient. Prior to the development and usage of hyperimmune vaccinal gamma globulin, the mortality in infants with eczema vaccinatum was thirty to forty per cent.[1]

On 9/3/59 a six year old sibling of the following cases was vaccinated. This was her first vaccination and resulted in a "primary take". Vaccination had been delayed until she was "over her eczema".

Case 1. A. S. W.: An eleven month old Negro male was admitted to the hospital on 9/24/59. The patient was in reasonably good health with the exception of atopic eczema for the past five months. Six days prior to admission he developed two vesicles on the face. On the following day he had a generalized vesicular eruption over the entire face and the antecubital and popliteal fossae. Subsequently the skin lesions became secondarily infected. There had been no nausea, vomiting, diarrhea, or anorexia. His mother reported that he had been "feverish" for two days. There was a normal birth history. He had received no immunizations and developmental history revealed he could crawl but could not sit alone. The family history revealed the patient has eight siblings who were reported as well. The father had asthma and all the other children have had eczema.

Physical examination revealed a somnolent Negro male lying quietly in bed. The face was rounded with edema and the eyelids swollen shut. Covering the left side of the face was a purulent eczematous eruption; surrounding this and on the right side of the face, the arms and legs were discrete, dome-shaped, umbilicated vesicles. A markedly enlarged non fluctuant node was seen in the left axilla; an enlarged node along the left mandibular ramus was readily palpable. Laboratory results showed a normal urinalysis. The hemogram revealed the hemoglobulin to be 7.6gm%. The white blood count was 19,760 with a differential count of 6% juveniles, 42% bands, 43% polymorphonuclear leukocytes, 7% lymphocytes, and 2% monocytes. The hematocrit was 29%. The sickle cell preparation revealed no sickling, and the blood Wasserman was negative. Culture of the lesions revealed a staphylococcus aureus, coagulase positive organism which was sensitive to penicillin and Erythromycin. Protein electrophoresis revealed a total protein of 5.6gm% with a marked increase in Alpha 2 and decreased albumin. Electrocardiogram was reported as normal.

The patient was placed in a precaution unit and on a regular infant diet. He was treated with aqueous penicillin and chloramphenicol systemically. The skin was treated with magnesium sulfate soaks followed by a calamine liniment with Neobasin. Neoaristocort acetamide ointment was used on the

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eyes. On the day of admission he was given 2 c.c. of hyperimmune vaccinal gamma globulin in each hip and this was repeated on the next day. Because of the marked hypochromic microcytic anemia and severe infection, the patient was given a blood transfusion. One blood culture was negative. Admission rectal temperature was 104° and varied between 97° and 103.8° rectally until the fifth hospital day when he became afebrile. His appetite and fluid intake remained good, and with the exception of the skin eruption, the course of his illness was relatively mild. Antihistamines were given to relieve the severe pruritus. During the early part of his illness restraints were necessary to prevent him from scratching his lesions.

Fig. 1. Case 1—Severe eczema vaccinatum on the day of admission to the hospital.

Case 2. D. E. W.: This three year old child was admitted to the hospital on 9/25/59 after the mother presented him at the Pediatric Clinic with the complaint that he had a lesion on his face "just like his brother's". The mother had been instructed to bring any other children to the hospital on whom she noticed any lesions similar to those seen on the previously admitted sibling.

This patient had an umbilicated vesicular lesion on the lip and two small papules on the right side of his face. He had slept in the same bed as Case 1. Past history revealed that he had eczema and seborrheic dermatitis until the age of eighteen months. Physical examination revealed a poorly nourished and developed Negro male in no distress. The temperature was 102° rectally, pulse 100, and respirations 20. The skin revealed many areas of depigmentation. An umbilicated vesicle 1 c.m. in diameter was noted on the right upper vermillion border with two papules 0.5 c.m. in diameter on the right cheek. There was a large umbilicated vesicle on the left calf. Laboratory studies showed a normal urinalysis. Hemogram revealed a hemoglobin of 8gm% with a hematocrit of 35%. The white blood count was 6,500 with a differential of 9% bands, 45% polymorphonuclear leukocytes, 39% lymphocytes, 6% monocytes, and 1% eosinophil. Stool examination was negative; no sickling was evident on the sickle

Fig. 2. Case 1—Resultant marked depigmentation of the skin on the day of discharge from the hospital.

cell preparation, and the tuberculin skin test was negative. Protein electrophoresis revealed an increase in the total protein to 8.2 gm% with a markedly elevated gamma globulin of 31.7%, our normal being 14.4%.

The child was placed in isolation and given 2.5 c.c. of hyperimmune vaccinal gamma globulin in each hip. On the day of admission the temperature was 102° and gradually became normal by the third day. His condition remained good throughout his hospital course with the exception of an upper respiratory infection on the tenth hospital day. The lesion on his lip progressed through a normal primary vaccination, however none of the other lesions developed past the papule stage.

Fig. 3. Case 2—Umbilicated dome-shaped vaccinal lesion which progressed through a normal primary vaccination.

Case 3. E. W.: This three year old Negro female was brought to the Pediatric Clinic because the mother was afraid she might develop lesions similar to those of her siblings. She also slept in the same bed as Case 1 and 2.

Physical examination revealed a poorly developed and nourished Negro female with marked thickening of the skin over her elbows and knees. Most of her skin surface revealed evidence of eczema with secondary infection.

She was given hyperimmune vaccinal gamma globulin 0.03 c.c. per pound as a prophylactic measure and did not develop any lesions of vaccinia.

Fig. 4. Case 3—Eczema with secondary infection and hyperkeratotic skin changes.

Dr. Clayton Wheeler of the Department of Dermatology, University of Virginia School of Medicine obtained fluid from the vesicles of Case 1 and was able to demonstrate the characteristic vaccinia lesions in tissue cultures.

DISCUSSION

The use of hyperimmune vaccinal gamma globulin in the prophylaxis and treatment of eczema vaccinatum is based on the evidence that (1) there is a viremia prior to the development of the skin manifestations of eczema vaccinatum, (2) the titer of virus in the blood is directly related to the severity of the disease, (3) specific antibody given prior to the severe viremia or shortly thereafter will neutralize the virus, and decrease the severity of the clinical manifestations and morbidity of eczema vaccinatum, (4) hyperimmune vaccinal gamma globulin can be obtained from human volunteers at the time of the greatest antibody titer following vaccination.

No studies on the viremia in smallpox had been accomplished until 1950 when Downie, McCarthy, and Macdonald[2] inoculated virus specimens on the chorio allantois of developing chick embryos, for the detection of variola virus. Using this technique it was demonstrated that variola virus produced characteristic lesions distinguishable from those produced by other viruses. These studies demonstrated that there was a viremia and that virus most likely could be found in the blood in the early stages of the pre-eruptive fever.

Kempe, Berge, and England[3] suggested that hyperimmune vaccinal gamma globulin used in the treatment of eczema vaccinatum was dependent on the fact that in variola there was a secondary viremia with fever and that this was a more severe viremia than that occurring during the early multiplication of smallpox virus in the lymphoid tissues. They postulated that the severity of the disease was directly related to the magnitude of the viremia, and if specific antibody found in hyperimmune vaccinal gamma globulin were administered prior to or during the second viremia, this would neutralize the virus and decrease the severity of the clinical manifestations of the disease.

Investigation of the possible causes for "no take" when newborn infants were vaccinated led Kempe and Benenson[4] to propose that passively acquired immunity from recently vaccinated mothers could interfere with vaccination in their newborn infants. They were able to show a higher antibody titer in the blood of newborn infants than the titer found in the infants' mothers. This supported the belief that antibody activity as passively acquired would prevent or decrease the skin reaction to the vaccinia virus.

Prior to these investigations MacCallum, McPherson, and Johnston[5] had suggested that household contacts who had not been vaccinated should

receive gamma globulin obtained from the serum of recently vaccinated persons or convalescent smallpox patients.

The levels of antibody titer after vaccination were investigated after the early determinations of Lautit and McClean[6] in 1945. Their work clearly demonstrated that the highest titer of virus neutralizing antibody was attained during the third and fourth weeks after vaccination, and that there was no significant change in antibody titer until the end of the sixth week. They also proposed the use of serum from recently vaccinated persons as beneficial in the treatment of vaccinal complications.

Further confirmation of this work was done by Kempe, Berge, and England in 1956[3], when serial testing of serum from 143 recruits showed by neutralization tests that maximun levels of antibodies were attained between the fourth and sixth week after vaccination. They described the preparation of this globulin from blood taken from recently vaccinated servicemen. Although techniques for accurately estimating the exact potency of this globulin were not available, it was felt that it was at least three times higher in antibody titer for vaccinia than gamma globulin obtained from random blood samples. In their series the mortality was greater when the globulin was given after the fifth day of illness. However, our Case 1 responded favorably to the treatment begun subsequent to the sixth day of his illness.

The three cases described received hyperimmune vaccinal gamma globulin supplied by the National Red Cross in Washington, D.C. Dr. James Pert, Research Director, Blood Program, rushed the serum to the University of Virginia Hospital by the Civil Air Patrol, and we are indebted to these individuals who were responsible for our receiving the serum in such a short time.

SUMMARY

The potential danger of vaccination for smallpox in any child suffering from atopic eczema and the danger of sibling vaccination under these circumstances is again emphasized.

Three cases are presented which demonstrate the use of hyperimmune vaccinal gamma globulin in the treatment of a severe and a moderate case of eczema vaccinatum and as a prophylactic measure in a third patient. The rationale of the work leading to the preparation and use of hyperimmune vaccinal gamma globulin for therapeutic and prophylactic purposes is discussed.

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Electroencephalographic Monitoring of the Surgical Patient

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The condition of the cerebral cortex during anesthesia can be monitored with the electroencephalogram. The depth of anesthesia can be accurately determined and the presence of any other factor contributing to cortical depression can be detected. Clinical signs are anticipated.

THE EEG is the record of the changes in electrical potentials taking place in the gray matter of the cerebral cortex. Clinically indirect leads are used, where the electrodes are placed on two points on the surface of the skull. The EEG produced in this manner does not represent the activity of a single cell or a small area of cells but is the algebraic sum of all the potentials generated by a large mass of closely packed cells. Under these circumstances a regular pattern will only appear if many cells are discharging synchronously at the same rate. If rate and timing of the discharge varies, the record will consist of irregular, small and undecipherable excursions. The typical EEG of a human adult shows a fairly regular pattern of waves which recur at a rate of 9 to 10 per second with an amplitude of approximately 50 microvolts or less. This pattern is only observed in the absence of mental activity and sensory stimulation. The tracing shows predictable and reproducible changes in relation to age, brain metabolism, the symptomatology of the various types of epilepsy, the level of consciousness and the pharmacology of CNS depressing or stimulating drugs and electrolytes.

The presence of the described regular pattern implies either an inherent rhythmicity of the brain tissue or a constant input of impulses. Recent investigations are strongly in favor of the latter explanation. It appears that the reticular core which extends from the spinal cord to the thalamus plays an important part in the production of this regular pattern. The ascending reticular activating system supplies a steady input of impulses from the periphery to the thalamus which in turn stimulates the cortex rhythmically. These activating impulses are responsible for the maintenance of consciousness and normal alertness. If they are interrupted, unconsciousness results and muscle tone disappears. The lack of thalamic stimuli arrests the normal electrical activity of the cortex and stimulates its suppressor areas. The latter fire the caudate nucleus which arrests motion and muscle tone by means of the extrapyramidal motor system. There is a good deal of evidence that most of the anesthetic agents exert their effects via the reticular core which is the structure most sensitive to chemical depression.

The influence of the extremes of age on the encephalogram is a well studied fact. Infants and children show a slow frequency, high amplitude pattern. With advancing age the characteristic adult tracing slowly evolves, which is completed around the age of 12 to 14 years. In old age this development is gradually reversed, with the exception that a simpler and less complex pattern than in childhood results.

Since the EEG is a reflection of intracellular energy release, it is intimately connected to brain metabolism. Any process reducing cortical metabolism, either as a generalized condition or a localized lesion, will alter the EEG. Generalized metabolic disturbances such as hypoglycemia, anoxia, respiratory acidosis, hypothermia, hyperthermia, reduced cardiac output and the like will result in a slow frequency accompanied at first by an increase in voltage and later on a flattening of the amplitudes. Localized metabolic disturbances such as cerebral vascular disease, tumor, abscess and trauma may produce

electrical silence, a slow frequency high voltage pattern or phase reversal over a circumscribed area of the skull.

In epilepsy or related brain disorders a multitude of typical changes have been described as so called paroxysmal tracings. In these conditions cortical energy release gets out of control due to a loss of the normal inhibitory mechanisms. As a result abnormally high and spiky or extremely fast electrical potentials are generated which dominate the entire cortex. Especially characteristic is the spike and dome complex with a frequency of 2 or 3 per second which is diagnostic of petit mal. Other typical patterns are the medium high extremely fast discharge of grand mal and the saw blade appearance of the psychomotor attack. As opposed to these seizure patterns, there are a number of changes occurring in the seizure-free interval either spontaneously or after appropriate stimulation. They are diagnostic or suspicious of epileptic disease in varying degrees. Occasional single or multiple spikes, sporadic spike and dome complexes, 6 to 14 per second positive spikes and very fast or very slow non-paroxysmal tracings can be observed.

In the last decade a very dependable and reproducible relationship between the level of consciousness and the EEG could be proved. In unconsciousness the tracings are free of many of the individual variations and influences of sensory and mental activities which may be disturbing in the conscious patient. The cause responsible for the coma may be a generalized condition, an intracranial process or the effects of anesthetic agents. The latter produce an especially well defined sequence of changes which are proportionate to the blood level of the agent in use. Notwithstanding a number of differences between the various drugs, a general basic pattern of the progression of anesthesia can be constructed. As a result a classification of the electroencephalographic signs of cerebral depression has been obtained. The first alteration during induction of anesthesia is an increase in frequency to 20 to 30 cycles per second and a slight decrease in amplitude to below 30 microvolts. As consciousness is lost this small rapid wave is replaced by a large slow pattern. Since these excursions are of regular appearance and sinusoid shape they are called the rhythmic pattern. As the level of anesthesia deepens these rhythmic waves increase in amplitude with slowing frequency and tend to become more and more irrregular in shape and timing. A secondary faster and much lower wave form is superimposed on the large

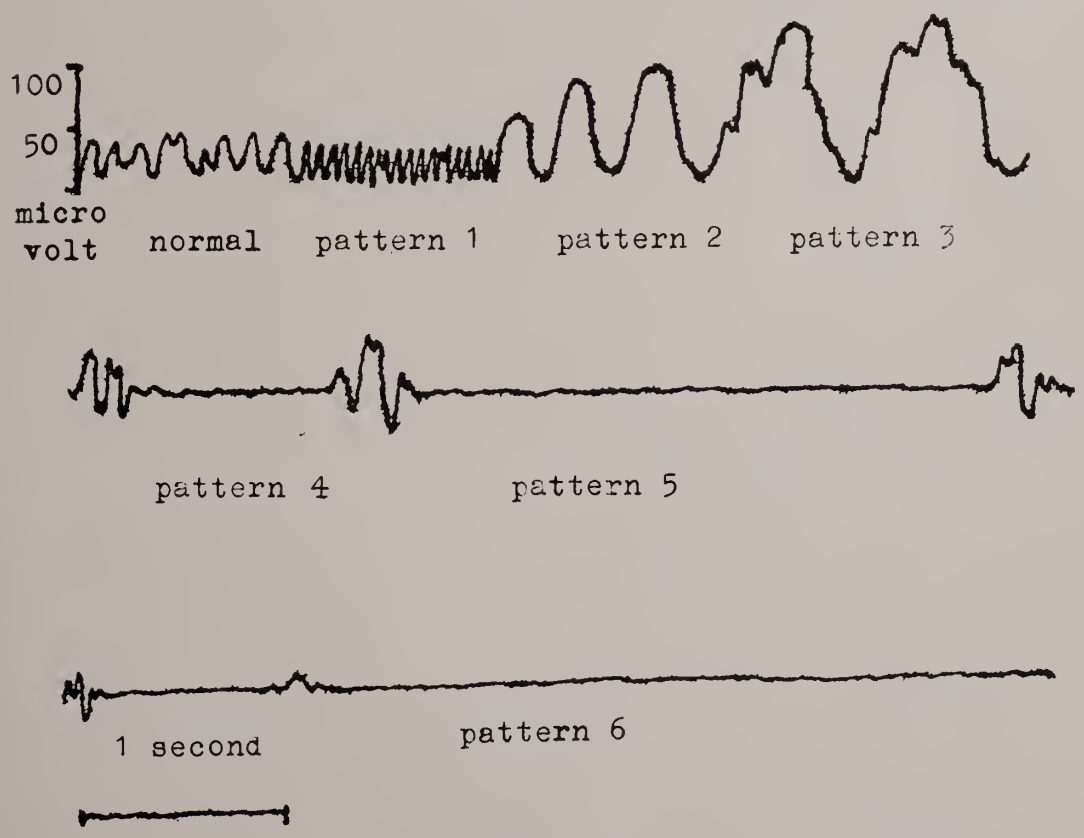

Fig. 1—Basic pattern of progressive depression as best seen in ether anesthesia.

deflections at this time. Thus a so called complex or mixed pattern slowly develops. Next the amplitude begins to decrease whereas the complex shape still persists. Thereafter periods of relative cortical inactivity appear which last less than 3 seconds at first. These burst suppressions increase in duration to between 3 and 10 seconds for a while and to more than 10 seconds later on. And finally the depression results in the entire loss of electrical activity with a flat or formless tracing.

Between this electroencephalographic classification and the clinical signs of anesthesia a good correlation exists, provided that cerebral metabolism remains undisturbed. The EEG changes precede the clinical signs significantly. Furthermore they register minimal changes and trends more sensitively. Pattern 1 corresponds to the transition of first stage to second stage anesthesia with loss of consciousness. Pattern 2 is equivalent to a deep stage two and pattern 3 to first plane third stage anesthesia sufficient for any procedure not requiring relaxation. Pattern 4 equals a deep second plane third stage level with good relaxation and pattern 5 corresponds to lower third plane third stage anesthesia with profound muscular relaxation. Patterns 6 and 7 are to be avoided in clinical work and coincide with fourth plane and fourth stage levels characterized by the absence of all reflex activity, impending respiratory failure, and severe cardiocirculatory impairment.

There is also evidence of an accurate relationship between the EEG and the neurophysiological proc-

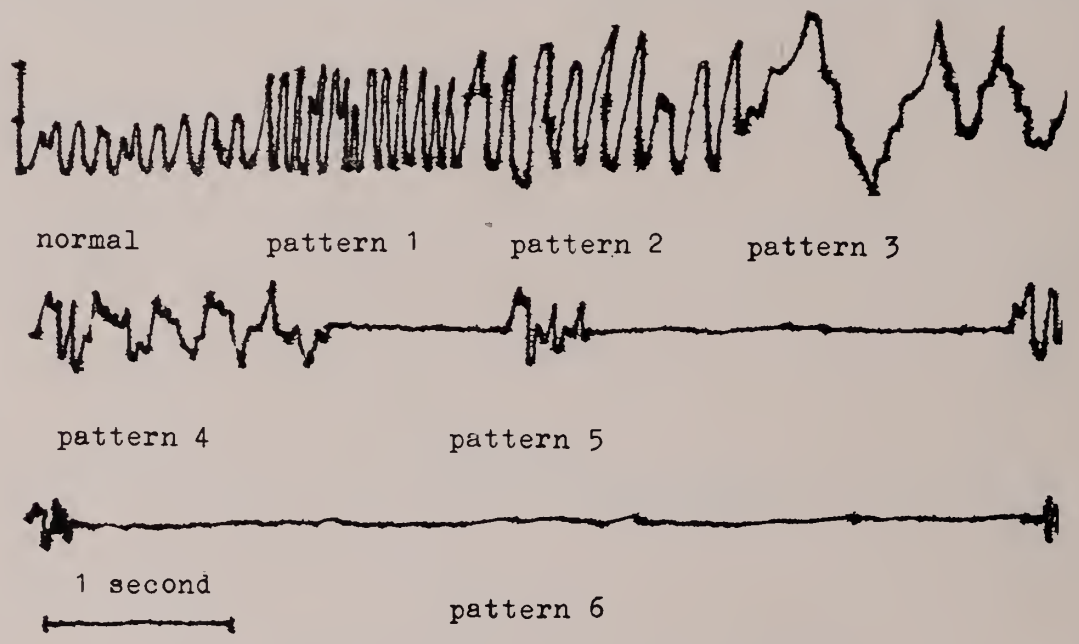

Fig. 2—Modification of basic pattern as seen with barbiturates.

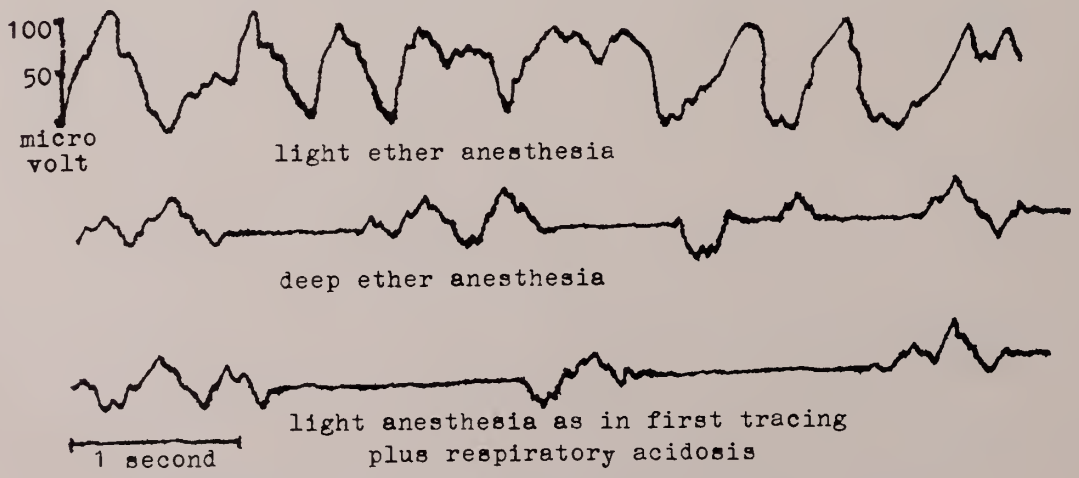

Fig. 3—Effects of respiratory acidosis superimposed on light ether anesthesia.

esses involved. Patterns 1 and 2 are a reflection of the differentiation occurring with the beginning and progressively increasing depression of the reticular activating system. The appearance of the complex pattern expresses the activation of the extrapyramidal system and the cortical suppressor areas. This is followed by the typical burst suppression of patterns 4, 5 and 6 and the electrical silence manifested in pattern 7. This sequence signifies the gradual cessation of rhythmic impulses via the thalamus. Obviously, this account of underlying cerebral processes is incomplete and represents only a beginning.

In summary the EEG is considered to be a dependable indicator of the depth of anesthesia which is especially helpful in extensive surgical procedures and with the use of more complicated anesthetic methods and multiple agents. Compared with the clinical evaluation it indicates small changes with greater sensitivity and at an earlier time. Moreover, accessory drugs such as ganglionic blockers, sympathomimetics, adrenolytics, anticholinergics, phenothiazine derivatives and the like may significantly alter the clinical signs of anesthesia but do not interfere with the electrical activity of the cortex. Finally, with the anesthesia stabilized at an even level the EEG shows evidence of any additional cerebral stress which may contribute to the total cortical depression. Thus cerebral anoxia, hypoglycemia, impaired pulmonary respiration, decreased cardiac output and cerebral blood flow, increased intracranial pressure may be suspected according to the individual circumstances and corrected with the guidance of the electroencephalograph.

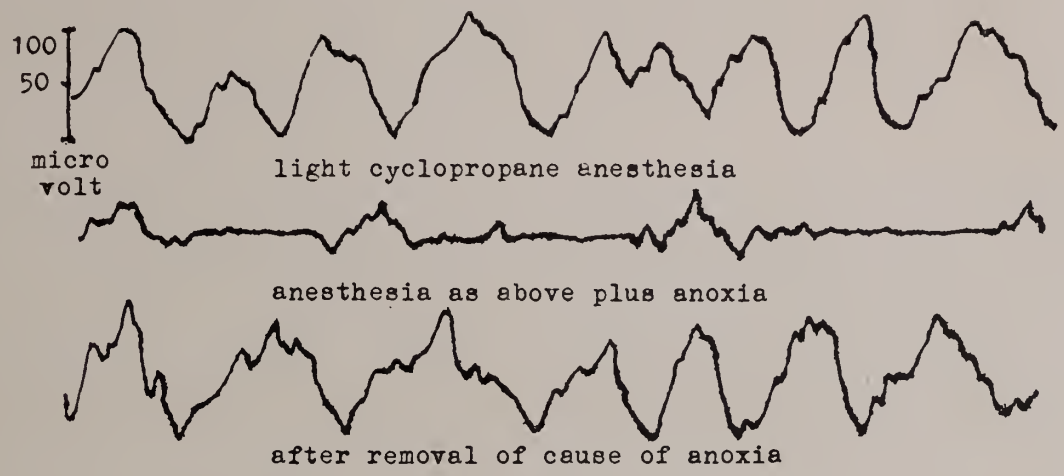

Fig. 4—Effects of anoxia superimposed on even anesthetic level.

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Metastatic Abscess of the Brain As Complication of Bronchiectasis

Case Report

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Brain abscess may develop as a complication of chronic suppurative disease of the lung. Various routes for the spread of infection are discussed and a case is reported.

THE WRITING of this paper is not to discuss or describe in detail bronchiectasis or cerebral abscess. It is intended to call to the attention of many physicians who are treating bronchiectasis, or have to deal with patients who have bronchiectasis the possibility of a most dangerous complication—metastatic cerebral abscess.

Cerebral abscess is not a frequent complication of bronchiectasis but is a serious one. In today's literature it is very difficult to find much information about it.

Prior to the development of modern chemotherapy, infection was usually the direct cause of death in bronchiectasis.

With present day antibiotics, infections occur but are generally easily controlled. Empyema and brain abscess are much less common than formerly. They still occur, however, and brain abscess, especially, may result from subclinical infection.[7] Forni[3] stated the symptoms of a chronic abscess during its latent period frequently are associated with the disease causing the abscess and it is necessary to make a careful examination for the diagnosis and treatment.

Bradshaw, Putney and Clerf[5] in 1941, reviewed[7] patients with untreated bronchiectasis seen originally between 1925-35. Fifty-nine of 134 patients died from bronchiectasis or its complications up to the time of the report. Mall reported three instances of cerebral abscess among 55 fatal cases. Schorstein stated that twenty per cent of bronchiectatic patients eventually develop a cerebral complication. Collis[1] reported three cases in 54 deaths from bronchiectasis between 1933-38.

Collis in 44 cases collected from the Brampton Hospital, from Birmingham United Hospital, and from E.M.S. Chest Center reported 12 cases of bronchiectasis complicated by metastatic brain abscess including eleven males and one female. There were different ages: the youngest, 13, the oldest, 44. Duration of the disease reported was from five months to entire life. Majority of abscesses contained streptococcus; one was sterile.

Evans and DeWitt have pointed out that the clinical picture of this type of cerebral abscess shows a marked difference in one respect from cerebral abscess of other etiology. This difference is the rapidity with which the disease reaches a fatal termination.

The organisms reported by Webster and Acordjion[9], as most frequent, have been staphyloccoccus, streptococcus and pneumococcus.

Evans stated that streptococci are frequently found in these abscesses but that a number are sterile—the occurrence of a proportion of sterile cases led McCordock to think that some organisms difficult to find microscopically or on cultures were responsible.

THE ETIOLOGY OF METASTATIC BRAIN ABSCESS FROM BRONCHIECTASIS

Virchow in 1853 drew attention to sudden appearance of symptoms of suppurative disease of the brain as a complication of septic pleuropulmonary disease. He attributed the connection to the passage of a septic embolus from the lungs to the brain. Why the brain is attacked more frequently than the other organs has been a puzzling question. Many theories have been proposed but none have been entirely acceptable.

Schorstein (G.I.)[8] felt that in chronic disease, the brain is not fully protected, as are other organs, by locally formed antitoxic agents.

Eagelton[2] felt that pulmonary disease favors the thrombotic process in the cerebral veins.

Gardner[4] felt that long continued coughing, by producing a positive intrathoracic pressure, lowers the cardiac output temporarily and a consequent transient ischemia of areas of the brain develops which tends to lower cerebral resistance.

Parker[6] thought it possible that the tissues of the lung and brain have something in common whereby brain tissue acts as favorable soil for metastasis of suppurative processes in the lungs.

The most acceptable theory is that for a thrombus to spread to the vessels of the chest wall it is necessary for the adhesions between the lung and the chest wall to have become vascularized. The thrombus will then be carried to the azygos vessel. In most cases they will then be carried to the superior vena cava and will be caught up in the pulmonary bed without ill effect. If the thrombus becomes detached when conditions favor a reversed flow in the spinal veins, it may then enter this system and be carried to the brain. These conditions will be present while the patient is coughing, straining on stool, or when supine. When the embolus has reached the brain it will be more likely followed by abscess formation if it is infected with anaerobic or microaerobic organisms.

We would like to stress the special importance of chronic conditions. It takes considerable time for the pleural adhesions to become vascularized so that a thrombotic process can spread across them to the intercostal veins. Bronchiectasis is only able to produce this condition when it is of severe degree or has been treated surgically because only under these circumstances can be the intercostal or bronchial veins be affected.

CASE REPORT

This 45 year old white tenant farmer was first admitted to Catawba Sanatorium on February 7, 1958, with a tenative diagnosis of pulmonary tuberculosis because of marked hemoptysis and productive cough. Tuberculin and histoplasmin skin tests were positive but cultures and concentrates of sputum were negative for acid-fast bacilli. His sputum was copious, purulent, separated into three layers, and grew almost pure cultures of staphylococci. Bilateral bronchograms showed extensive cylindrical bronchiectasis of the right middle lobe and both lower lobes. On antibiotics and postural drainage there was some improvement and he was discharged three weeks after admission. Following that, his local doctor treated him about once a month with "sulfa and pencillin" for exacerbations and fever.

A few days prior to his second admission to Catawba Sanatorium, his head began to hurt and he had interior chest pain. He also experienced abdominal discomfort with nausea. On the third day of these complaints, he was admitted to a local hospital with a very severe headache. Presumptive diagnosis of tuberculous meningitis was made and he was transferred to Catawba Sanatorium on April 4, 1959, fourteen months after his first admission.

Examination: Temperature—100.2°; Pulse—120; Respiration—28; Blood pressure—160/120. A slender, normally developed, chronically and acutely ill male complaining of headache and abdominal pain. He was mildly confused about recent events. He took various positions in bed and could sit with some assistance. Grip and bilateral motions were normal. Pupillary reactions were equal and normal. The optic disc was indistinct in outline and minimal papilledema was thought to be present. The skin around the mouth and nose was erythematous, shiny and scaling. The head and neck were mobile except for slight resistance to flexion. Brudzinski's sign was present. All deep reflexes tested were somewhat hyperactive. No sensory aberration was observed. The abdomen was tense but not rigid. There were no cardiac murmurs heard and the rapid heart rate was regular. On auscultation of the lungs, moist rales were heard in the right base posteriorly and laterally. Chest x-ray revealed patchy densities in both lower lung fields with suggestion of honeycombing in the left base.

Laboratory data: On April 21, 1959, blood cultures were planted and reported negative for common bacteria. Blood count reported: WBC 13,200; Polys 88%; L 7%; E 4%; M 1%. Spinal puncture was performed. Opening pressure was read as 440 mm of H_2O; closing pressure, 360 mm of H_2O. The appearance of spinal fluid was described as slightly cloudy. It contained 1,380 cells per cubic millimeter with 65% lymphs and 35% polys. Smear and cultures from spinal fluid for acid-fast bacilli and secondaries were negative. There was slight increase in proteins. Sugar content, 62 mg.%, chlorides, 640 mg.% Queckenstedt test was negative.

Hospital Course: During the first two days the patient asked frequently where he was, cried out

irrationally occasionally and complained of headache. It was noted that there were small irregular jerking movements of the left arm upon occasion. By the third hospital day, the patient seemed much improved and sat up to eat his general diet and walked to the bathroom. Temperature was 99°. Brudzinski's sign was negative and the patient seemed normal in most respects, except headache which was treated with ASA with some relief. On the tenth hospital day, for the first time, he became nauseated and vomited. Headache increased and the patient received 50 mg of Meperidine after Cafergot and ASA failed to give relief. Temperature rose to 100.9° on the twelfth day but no other abnormalities were noted. Chloromycetin gm. one daily was started. Early on the fourteenth day he suddenly became stuporous, pupils failed to react to L and A and he had definite nuchal rigidity. Blood pressure —170/98; Temperature—100.8 (R); Pulse 58/min and Respiration 20/min. Profuse perspiration and moderate generalized muscular twitching were noted just before he expired.

Autopsy was performed.

Left lung was described as firmly adherent to the rib cage. The bronchial tree was dilated out to within a centimeter or two of the pleural surface. The walls of bronchi and of the small vessels showed inflammation. The pulmonary parenchyma was congested.

The brain, after removing the calvaria, was under considerable pressure. The gyri were markedly flattened. On section of the brain, an abscess, measuring approximately 6 x 5 x 5 cm, located in the inferior portion of the right frontal lobe filled with thick, green, purulent material, was seen. Cultures were taken and reported negative for bacteria.

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Catawba Sanatorium
Catawba, Virginia

Money for Medical Care

Americans are spending twice as much money for recreation, alcoholic beverages and tobacco as they are for medical care, according to the Health Insurance Institute. Two out of every 18 dollars the public spends for its personal needs go for recreation, alcohol or tobacco compared to an expenditure for medical care of one out of every 18 dollars.

According to data based on 1958 figures and released by the U. S. Department of Commerce, Americans spent $293 billion on their personal needs.

Some $17 billion of this sum, or 5.8 per cent, was spent for recreation while $9.2 billion (3.1 per cent) went for alcohol and $6.3 billion (2.1 per cent) was used to purchase tobacco products, for a total of $32.5 billion, or 11 per cent of total personal consumption expenditures.

In comparison, $16.4 billion (5.6 per cent) was spent on medical care. Other public expenditures in 1958 included $67 billion for food, $38 billion for housing, nearly $34 billion for transportation, $32 billion for clothing, accessories and jewelry, almost $4 billion for religious and welfare activities, and $3.4 billion for education and research.

Medical Care Services In Rural Areas

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Medical care for the aged in rural areas has not received the consideration that it has in urban areas. An analysis of and partial answer to the problem is given.

AMERICAN SOCIETY can no longer be divided into two clearcut segments, urban and rural, with distinctly contrasting features. Social dichotomy has decreased in inverse proportion to the increased mobility of our people. The impact of social, technical, and economic change is similarly experienced by rural and urban communities. The increased availability of modern communication media has lessened the isolation of the farm family. There are few rural families living beyond a commuter's distance of a town or city of considerable size. Thus rural people are more closely integrated into the large society.

As exemplified by this meeting, contemporary society is concerned with the older segment of the population. This interest has been demonstrated in national, state, and local levels; but, more action has occurred in urban areas. Probably this has been due to two causes. First, approximately two-thirds of all persons age 65 and over in the United States live in urban communities. Secondly, it has apparently been assumed that social and economic conditions of rural life are more favorable to the aged person. However, a closer look at present day rural living will seriously question this assumption.

MEDICAL CARE PROBLEMS IN RURAL AREAS

As a basis for discussion of medical care services for the rural aged, certain medical care problems should be examined.

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Presented at the Governor's Conference on Aging, Richmond, December 15, 1959.

The Need For Co-ordination of Available Services

As social and economic changes have reduced the farmer's isolation, the same changes have often removed him from his traditional culture. Emotional confusion associated with these changes has often brought about erosion of his personal and familial security. Family ties have weakened, community responsibilities have been revised, and the farmer feels that farming is no more secure than other occupations in preparing for retirement.

These socio-economic and technical changes have also directly affected the medical care services available, and equally the approach to obtaining modern medical care has been altered. The older rural person cannot obtain medical care today in the manner to which he became accustomed as a young man. Modern medicine, with its associated specialization, is so different that the pattern of medical care our older citizen became accustomed to 30-40 years ago only tends to confuse him today. The country doctor that our senior citizen learned to love and depend upon is now a senior citizen himself. He has been replaced by better trained, better equipped, more technically advanced physicians who generally perform their services in clinics or hospitals. This means that most patients must go to the health facility to obtain medical care rather than having the service brought to their home.

When the aged rural patient ventures forth to seek medical care, he faces a formidable array of medical resources. Often he finds a physician or health service to guide him through the maze of specialities and services available. Often he is not properly directed and becomes confused and discouraged. This not only obstructs his effort to obtain the excellent care available, but such an experience causes him to procrastinate when care is needed in the future. Such hesitation may prohibit the early diagnosis and treatment so essential to preventive medical care in the aged. The lack of co-ordination and direction of medical care also necessarily result in duplication of services and the associated poor economy. For these, and other reasons, it is my opinion that one of the major medical care problems of the aged in rural areas is the lack of co-ordination and direction of available medical resources.

The Problem of Financing

A second major problem faced by the rural aged in obtaining medical care is the one of financing its cost. The difficulties here are probably just as common and complex in a rural area as in a more urban one. There is a limited number of our rural aged population who can meet the costs of needed medical care. There are others who can afford all necessary costs except those associated with long-term illnesses. There are the medically indigent where the balance of medical need and financial resource may tip in either direction. Then there are those who are totally indigent.

Many of the rural aged have medical care needs in excess of their decreased income and resources. However, the most prominent financial problem in medical care of the rural aged is demonstrated by the communities concern, or lack of concern, for the provision of medical care services to the indigent and medically indigent aged patient.

Reliable statistics are not available, but it seems that the problem of financing medical care for the aged indigent and medically indigent may be greater in rural than urban areas. This may be related to three factors. First, the rural worker is less often covered by group medical insurance and other job-associated benefits that may be carried into retirement. Second, the financial resources of the rural community are often limited in comparison with the revenue potential of the urban area. Third, medical care facilities provided through voluntary agencies are less likely to be available to the rural aged.

The Need for Adequate Medical Facilities and Personnel

Essential medical services available to the rural aged are basically sound. As mentioned earlier, modern transportation and communication has made urban medical facilities available to most rural citizens. Community hospital and clinic services continue to expand. Each county in Virginia has full-time public health coverage and voluntary health agencies continue to form new chapters in rural areas.

However, there are striking exceptions to this generally favorable Virginia picture. County medical and dental societies in many rural areas have not demonstrated an active interest in the health problems of the aged. Home care programs for the rural aged are either non-existent or only in experimental or formative stages. Licensed nursing homes tend to locate in urban areas and become filled with urban patients thus making such facilities practically unavailable to the rural patient. Special diagnostic and evaluation services for the aged essentially do not exist in rural areas.

Most basic to all these needs, there is a serious shortage of trained medical personnel in rural hospitals and public health departments. This shortage is not only reflected in the quality of medical care available but restricts any expansion of present services.

Types of Illness

Again, reliable statistics comparing types of illnesses experienced by the aged rural and urban dwellers are not available. Indeed, it is difficult to find, in terms of morbidity, the actual illness picture of the rural aged. From mortality data it appears that the long-term illnesses and causes of death of rural Virginians are not too different from those who live and die in urban areas. Chronic or long-term illnesses seem to be the most obvious clinical problem occurring in this age group. These chronic illnesses may be generally classified as being in the so-called degenerative disease groups, (such as cardio-vascular disease, diabetes, arthritis, etc.). Although these diseases are not limited to the over 65 age group, it is this group that such long term illnesses present the greatest socio-economic and rural medical care problem.

The Need For Research

In describing these medical care problems several assumptions have been made. This was necessitated by the lack of factual data available. It is doubtful that the health and medical care problems of the rural aged Virginian have ever been actually defined. This reason alone should justify the need for investigation. The whole problem, its component parts and the associated responsibilities, requires delineation.

Administrative and operational research is needed to determine the best method or methods of applying technical information already available. Above all else, sufficient funds are needed to obtain qualified personnel to investigate these problems in our rural communities.

SUGGESTIONS RE THE PROBLEMS

Attention has been directed to certain problems associated with medical care services for the aged rural population. Many of these problems are remedial and by appropriate stimulation and assistance can be resolved in the local community.

Co-ordination and Integration of Medical Services

Medical care is now offered to the aged by a variety of organizations, both public and private, official and voluntary. These services vary from community to community, but other than care provided by general practitioners and general hospitals, the facilities available tend to be specialized. Specialists in medicine tend to be interested in specific disciplines. Voluntary health agencies necessarily confine their activities to special fields, such as cancer, heart, etc. Official health and welfare agencies are also categorical in approach (such as cardio-vascular diseases, cancer control, Old Age Assistance, etc.). The latter instance, however, may only be an expedient of the moment due to eligibility requirements for Federal and State funds participation. Nevertheless, the medical care needs of the aged can best be defined through general medical care facilities. Specialized medical care programs for the illnesses exhibited by the aged are desirable. However, it is my belief that a general clinical approach to these problems should be the basis and the "clearing house" while the categorical and specialized facilities should receive the referrals.

For these reasons it is recommended that general medical care clinics be established throughout rural Virginia with a purpose of coordinating basic medical care and preventive medical services to the aged. These clinics should result from the cooperative action of organized medicine, voluntary health groups, and official health and welfare agencies. Such clinics can be established within the framework of existing organizations. Local departments of public health are ideally suited to serve as the nucleus for this type program.

Financing

For purposes of discussion, the rural aged population may be divided into two medical-economic groups. The first group consists of those whose means are sufficient to provide their medical needs and those whose means are sufficient to meet all but the costs associated with catastrophic illness. This group should be covered by voluntary insurance.

As of June 7, 1959, the AMA Council on Medical Service reported there were 21 Blue Shield plans in 19 states offering programs for the aged. In 24 other areas, sponsoring medical societies are developing plans to define the elements of care to be provided and to establish the scope of benefits to be offered. Private insurance carriers are working on the problem to make coverage initially available to those over 65 on an individual basis. Blue Shield contracts allowing only 66 per cent of customary fees have been agreed upon in many areas, thus placing the personal profit of physician's services second to the need for their services. In the last meeting of the House of Delegates of The Medical Society of Virginia, action was taken in this direction. A special "senior citizen" contract, proposed by the Virginia Medical Service Association (Richmond Blue Shield), was approved. One of the principal features of the contract is a reduced fee schedule. Income limits for full service benefits are $1,500 for the individual and $2,500 for husband and wife. Experience in other fields of voluntary health insurance proves that this voluntary approach is workable and desirable.

The second medical economic group may include the indigent and so called medically indigent. In this group every effort should be made to expand the number and coverage of eligible beneficiaries of voluntary insurance in the so called medically indigent group.

Medical care for the indigent must continue to be tax supported.

This does not complete the responsibilities or solve the problem in itself. New and improved methods of medical care must also be provided on a more economical basis. Thus again your attention is directed to the necessity for coordination for medical care and the provision of care facilities in which the cost is commensurate with the need. This leads to further discussion of medical care facilities for the aged.

Medical Care Facilities

Adequate licensed nursing homes are essential to the economy and medical care of the rural aged. A coordinated medical care program in rural Virginia cannot operate as economically as technical knowledge permits until it is possible to place the patient in the facility where cost and necessary care are compatible.

Personnel and funds must be made available to expand public health nursing supervision to the aged in their own home. When this is done the Public Health Nurse can instruct and supervise care given by relatives in the patients home so that many of the rural aged can be cared for most economically in their familiar surroundings.

General medical care clinics should be established to provide diagnostic, evaluation and follow-up medical services to those patients referred from general

hospitals and to give direction for those cared for at home.

Throughout the entire program some agency should coordinate and direct the patient into and out of the facility best suited to the medical needs that he exhibits.

Research

Basic research relative to the physiology of aging should be continued and expanded but even more important to the rural aged, administrative and operational research should be initiated. This research should consist of field experiments and pilot studies designed to determine the most economical and effective means of applying technical knowledge already available.

These investigations, carried out in rural areas under state and county sponsorship, might consider such questions as:

a. In view of the present shortage of nursing personnel, can licensed practical nurses, under Public Health Nursing supervision, be used in a home care program for the rural aged patient?

b. Should the Virginia State Department of Health, through the local health Departments establish diagnostic, evaluation and classification clinics for the aged? (Similar to present day well-baby clinics.)

c. How can technical knowledge relative to nutrition in old age be most effectively applied in the field?

A WORKING EXAMPLE

As an example of how a rural community can meet some of the medical care needs of the aged, I would like to briefly outline a program now in effect in Russell County, Virginia.

In 1952, with the approval of the County governing body, and the sponsorship of the County Medical Society, the Health Department conducted a comprehensive investigation of medical services available to public assistance recipients. This investigation revealed certain faults in the administration of medical services to the indigent.

Authorization for medical care and hospitalization was granted by the Superintendent of Public Welfare. The Superintendent was not oriented in the medical profession and thus did not possess sufficient information to adequately judge the need, desirability or merit of the various requests for medical care.

Too, because of the lack of informed control of the patients, the medical services of voluntary and public health agencies were not always made available to the patient.

The Welfare Board functioned without the routine advice or opinion of the medical profession. Such medical information that was submitted to the Board was often inadequate and difficult for laymen to interpret.

Most of the patients in this indigent group were persons with long-term illnesses who only obtained medical care during acute exacerbations of their illness. There was no concerted effort to provide continued medical supervision and control or prevention of illness in these patients.

As a result of this investigation three remedial steps were initiated:

1. A "screening" facility was established to locally determine the medical status and needs of the indigent group. This facility took the form of a weekly clinic, conducted by the local physicians and Health Department, in which all Welfare clients and public assistance applicants were examined and a detailed medical opinion was rendered.

2. A Medical Advisory Committee, composed of local physicians, was formed to serve in an advisory capacity to the Department of Public Welfare relative to specific medical problems.

3. The local Health Department assumed the role of coordinator of the medical services rendered to the indigent-sick.

During the first three years of operation this program demonstrated the value of coordinated medical services. Duplication of services was avoided and all community resources were made available to the patients. Unknown cases of malignancy, syphilis, gonorrhea, diabetes and tuberculosis were detected through the clinic. However, one of the most important observations made was the fact that the patients with whom we were working were indigent chronically ill persons who could benefit from continued medical supervision.

In view of this observation, it was decided to establish a General Medical Clinic which would not only continue the screening and advisory activity but would also provide out-patient medical care. The clinic was activated in January 1956.

In general the clinic, which is held each Friday in the Health Center, provides preventive, diagnostic and therapeutic services that are commonly offered by an adequate general practitioner in the operation of his private office. Specialized medical services are obtained by referral to nearby urban areas.

Hospital care, when indicated for clinic cases,

is provided on recommendation of the clinic physician through existing programs of State and Local Hospitalization and other categorical programs. Dental services are provided by local practicing dentists. Bedside nursing care, as such, is not provided; but, where indicated and upon recommendation of the clinic physician, the Director of the local Health Department may approve acceptance of the patient for services normally rendered through Public Health Nursing supervision.

Throughout the entire program emphasis is placed on the preventive and control aspects of the condition exhibited by the patients admitted. Every effort is made toward early physical and vocational rehabilitation in cases considered feasible for this approach.

The eligible population consists of public assistance recipients and medically indigent residents of Russell County. Medical indigency is determined by the Department of Public Welfare.

Patient visits to the clinic are by appointment only. Appointments may be made by request of eligible individuals, by referral of local physicians or return appointment given by the clinic physician. The clinic is staffed by a Public Health Nurse and a local physician who serves on a rotating basis with the other physicians in the community.

The coordination and integration of available services are both vertical and horizontal. The welfare social worker, vocational rehabilitation personnel, and the Health Department staff is integrated, through the clinic, as a team. Rehabilitation and social workers are encouraged to attend the clinic with problem cases and clinic physicians assist by giving information and recommendations as needed.

The clinic budget allows for necessary consultation fees, an honorarium of fifteen dollars to the clinic physician and indicated laboratory and x-ray services which are purchased through the local hospital. These funds are provided through the Virginia State Department of Health and the Russell County Board of Supervisors. Drug bills are paid through the Department of Public Welfare.

The age distribution of current clinic cases ranges from two to 87 with a median age of 48. This relatively low median age is of importance in that it indicates the potential long-term nature of many of the illnesses. Also, it emphasizes the moral and economic necessity of early rehabilitation of the indigent-sick.

The types of illnesses exhibited in the clinic largely consists of the degenerative diseases that have existed for sometime prior to the patient's admission to the clinic. The primary admitting illness is often associated with complications and other concomitant pathology.

It is estimated that 80 per cent of the current active clinic patients have varying degrees of nonreversible pathology. In such instances efforts are directed to the control of the disease process, alleviation of discomfort and the prevention of harmful sequelae. Approximately 15 per cent of the cases have remedial defects which under proper treatment allow physical rehabilitation. The remainder of the cases usually represent acute illnesses and other disease processes which readily respond to treatment, but which without adequate therapy may develop into long-term pathology.

On the basis of experience gained in this program, similar clinics are now in the initial phases of development in two adjacent counties. The new clinics are being modified to meet local community needs and resources, but generally their development will follow a pattern similar to that described in the Russell County experience. The Virginia State Department of Health intends to include in their budget for the next biennium a request for sufficient funds to establish approximately 20 additional clinics of this type. If these funds become available and such clinics are established, it is my opinion that a major step will have been taken in the direction of improvement of medical care services to Virginia's rural aged.

Note: Since presenting this paper, Dr. Jessee has been promoted to the staff of the State Department of Health as Regional Director of Local Health Services. His address is 4813 West Seminary Avenue, Richmond.

Children's Unit, Eastern State Hospital

LEWIS R. RODDY, M.D.
Williamsburg, Virginia

A children's unit has been established at Eastern State Hospital. It is well staffed to help the disturbed child and has accommodations for fifty-four patients.

A LITTLE KNOWN DIAGNOSTIC and therapeutic facility available to Virginia physicians is the Children's Unit of Eastern State Hospital. It is unique in the State Hospital System, and is a comparatively rare type of medical facility. The Children's Unit is an inpatient, diagnostic and treatment center for emotionally disturbed children. It exists as a separate service within the hospital.

HISTORY

For many years an effort was made to separate the children in the hospital population from the adult patients. This effort was the beginning of the present Unit. Separate wards for children eventually were established. Because of the unique needs of disturbed children, a cohesive service with special facilities then began to evolve. Each year the Unit became more readily identifiable as a separate service, and each year the therapeutic program was enlarged and improved.

Highlights in the history of the Children's Unit include the establishment of a separate ward for boys in 1954 and for girls in 1957. An intramural school was started in 1954. Two years later the department of clinical psychology began to participate in the therapy program, making both group and individual psychotherapy available to all the children. In 1959 a staff physician was given full time assignment to the Unit. That same year transfer of the children to the present location of the Unit was completed. 1960 has been a year of continued development with a special effort to include the parents of the patients in the treatment program.

PHYSICAL FACILITIES

In its present location, the Unit occupies the second floor of one of the newer buildings in Eastern State Hospital. Being located in the Dunbar area of Williamsburg, the building is surrounded by spacious grounds providing out-of-door play areas and restful scenery.

The Unit is divided into three areas—a central school and administrative area and two wards. In the central area are located the four classrooms of the school, the physician's, psychologist's, and nurses' offices, and a treatment room. On each side of this central area is a ward, one for boys and one for girls. Each ward contains fifteen private rooms and two alcoves with a capacity of six beds each. In addition, each ward has a day room, nursing office, treatment room, lavatory, shower room, and storage areas.

The occupational therapy shop is shared with the adult patients who reside on the first floor of the building, thereby making it available to the children only half of each day. The kitchen and cafeteria are located in the basement and are shared with the adult patients; however, separate dining rooms are provided for the children. There is also a large recreation room available for dances, parties, and motion pictures.

STAFF

The staff has representatives of many disciplines. Its members, with full time assignment to the Children's Unit, are listed below:

Physician in charge	1
Clinical psychologist	1
Social worker	1
Teachers	3
Nurses	2
Attendants	8

In addition, there is a part time staff, as follows:

Occupational therapists	2
Student teachers	3
Clinical psychologists	3
Graduate psychology students	5
Music therapists	2

Great help in the various programs is provided by numerous volunteer workers from Williamsburg and neighboring areas.

DIAGNOSTIC AND THERAPEUTIC PROGRAM

Due to a relatively small patient population, each patient is known by every member of the staff. Frequent conferences are held so that each staff member may share in the observations and findings of the others. In addition, these frequent conferences permit inter-discipline communication and coordination in order to assure a unified, consistent therapy program.

During his early weeks of hospitalization each patient is evaluated, both physically and mentally. The routine diagnostic workup includes:

- Physical examination
- Blood and urine studies
- Psychiatric examination
- Psychological testing
- Electroencephalogram
- Skull and chest roentgenograms
- Tentative placement in a class in school
- Observation in various activities and situations
- Detailed family and development history obtained from parents
- Evaluation of the parents' personalities and the dynamics of the family

On the basis of this initial evaluation, a diagnosis is made. Where possible, the patient is returned to the referring source with a summary of findings and recommendations. If continued hospitalization is indicated, an intensive therapy program is begun.

The regimen attempts to provide a comfortable environment in which the child is accepted and his behavior understood. In a permissive, accepting atmosphere, the child is encouraged to interact with the other patients and with the staff members. As problems arise, the child is helped to deal with them. While the attitude of all staff members is generally permissive, the environment is kept sufficiently structured so that the child can easily grasp the limits of acceptable behavior. Great emphasis is placed on maintaining a stable environment. The overall plan of treatment is to provide a milieu in which the child can resolve his problems, grow emotionally and intellectually, and develop constructive patterns of behavior.

The school provides both group and individual instruction designed to fit with the therapy program. Where possible, sufficient scholastic achievement is maintained to allow the child on release from the Unit to return to school without falling behind his class.

About seventy per cent of the children receive tranquilizers in order to facilitate their participation in the program. All of the patients attend group therapy sessions once or twice a week. More than fifty per cent are receiving individual psychotherapy. All are involved in the occupational, school, recreational, and music therapy programs. In addition, each staff member is available to help the patients work out the day to day problems that arise.

Twice a month group therapy meetings are held for the parents of the patients. Also, the ward physician and the social worker have frequent conferences with each family.

PATIENT POPULATION

The present capacity of the unit is fifty-four children. The patient population is usually from thirty to forty. At the time of this writing, there are thirty-three children in the unit. Their age range is from ten to eighteen years. The present population includes patients with adjustment reactions of childhood and adolescence, schizophrenia, chronic brain syndrome with various reactions, and mental deficiency with various functional reactions.

SUMMARY AND CONCLUSIONS

The Children's Unit of Eastern State Hospital is a psychiatric residential unit for the diagnosis and treatment of emotionally disturbed children. It attempts to provide a therapeutic milieu in which disturbed children and their families can be helped. The efforts of many disciplines are involved in the program and a variety of forms of therapy are used.

Eastern State Hospital
Williamsburg, Virginia

Mental Health . . . .

JACOB SILVERBERG, Ph.D.

The Stilled Voice Reawakened

For those individuals who have had a laryngectomy a most conspicuous concern quite obviously is the inability to speak. However, in gaining an understanding of the problems with which such individuals are confronted rather than devote this discussion to the techniques of speech retraining per se the approach will be on a much broader and yet more personal level. When a disabling illness occurs progress in recovery and rehabilitation depends on whether we deal with the individual's response to his illness as a whole or whether we focus narrowly on the disability alone. The tendency so often is to think in terms of the illness, of the specific symptoms and the particular impairments that accompany it and which may remain when the acute phase of the illness is over. In this sense the person is looked upon primarily as a carrier of the illness, as if the two were physically together yet as if the disability is to be considered separate and apart from the rest of the person.

When we instead look upon the individual within the context of his total life situation we become aware of a number of effects and ongoing states. One of the common characteristic aspects of illness is the sudden and extensive limitations which may be imposed on the psychological life of the individual. At first the experience may be one of anxiety and despair leading to feelings of inadequacy and even precipitating an attitude of hopelessness. These feelings may begin influencing the individual even before he sees a physician or goes to the hospital. They may affect his relationships to his physician, may be carried over into the treatment process, and also into his post-convalescent period.

A procedure which may result in either the removal of part of the body or in a change in the physical appearance of the body, or both, often may cause an initial period of depression. In a sense, a kind of normal mourning sets in. The change in the physical state of the body tends to emphasize that something has been lost or altered. The individual's wish to be as he was before, a whole intact person, accentuates these feelings of loss or change. However, a period of "mourning through" may be more helpful in eventual recovery than a persistent denial of either the loss, or of the value attributed to the lost part of the body or its function. In this way an individual can then have the opportunity to alter his interests and goals more realistically in accord with those assets and capabilities that remain intact, a basic change necessary for the resumption of a productive and self-directing life.

A few words need to be said in regard to the popular concepts and attitudes about cancer itself. The word cancer, much less the disease itself, has been and remains associated in the minds of most people with strong emotional attitudes, particularly with fears of having an incurable malignancy. What needs to be emphasized here is the realistic observation from experience that cancer of the larynx is usually a localized disturbance and, with proper treatment, represents one form of cancer with an excellent prognosis. While some of the fear of cancer is realistically based, to a large extent much of the anxiety attached to their illness appears to stem from irrational fears. How an individual may react to this illness is usually colored by these psychological attitudes and conflictual feelings.

One of the central problems relevant to this discussion has to do with the psychological effect of losing the ability to speak, an activity so uniquely human. It is not solely the loss of part of the body, the larynx, which may be threatening but of far greater importance may be the inability to communicate with others as before. The separation between ourselves and others is now painfully experienced and this may in turn lead to further isolation and withdrawal from the world. This change in living often contributes to the way the individual perceives the physical, marring, effect of the tracheotomy and of the artificial devices used and how he believes he now appears to others. Many individuals are highly sensitive to this cosmetic effect. Such feelings may engender an increased shyness about the self and

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Paper is based on a talk delivered to the Piedmont Lost Chord Club of the Richmond Unit, American Cancer Society, Inc.

JACOB SILVERBERG, Ph.D., *Director of Psychological Services, Memorial Guidance Clinic.*

Approved for publication by Commissioner, Department of Mental Hygiene & Hospitals.

a desire not to be seen by anyone. It becomes easy then to slip into the role of the invalid, to be not simply a person with some physical limitation, but an invalid in the more complete sense of the word. Far more basic than the loss of a part of the body is the effect of this illness on a person's concept of himself—the self as a social being, the self as a provider for the family, the self as a productive human being. It is easy to look upon one's self as an injured, ineffective person and to feel that others consider one's self in the same light. A person may see himself now as being a burden to his family and to his friends and may feel that he is unmanly, worthless, ugly. He may even try to deny that he is ill or will try to hide it. Ill people are so often devalued in our society and looked upon as inferior individuals, that those who are afflicted accept the devaluating aspect of their illness and will tend to devalue themselves.

It is important as to how the patient's family reacts to his disability. If they reject the individual, that is, indicate in one way or another that they are unhappy about what has happened, or if the family becomes overindulgent and protective, and act as if they were afraid to allow the person to attempt to return to a self-sustaining existence, the net effect will be to hinder recovery.

Attention, therefore, needs to be paid to those aspects of the individual that remain intact, which represent useful assets, and with which health can be recovered and maintained. To help do this one of the most valuable functions afforded by such groups as the "Lost Chord" clubs, is that by a common identification each individual who has had a laryngectomy can share and compare his experiences, his ideas and attitudes, his fears and anxieties about himself. Here he can find an acceptable atmosphere for intimately facing his feelings regarding his disability—where the members of the group can show each other that they are not alone. In this way each individual can learn that there is a community to which he can belong, where he is accepted and can assist others with similar problems, and through which he can move on to recover on a more complete basis than the physical alone.

This atmosphere is essential to a recovery program. While speech practice is important in order to receive the most benefit, these other factors when brought out and exposed to the light of common awareness may encourage the relearning of speech so that it can be more easily and quickly accomplished. A person recovers health, really achieves health only as he overcomes the psychological problems engendered by his illness as related to himself and to those individuals in the world who are of significance to him. In the final analysis each individual while given assistance by others must learn to take care of himself—no one else can do it for him.

Twins Should Be Treated As Individuals

Twins, who physically may be hard to tell apart, psychologically need and seek individual recognition, according to an article in Today's Health magazine.

Twins struggle for an identity which, because of the very circumstances of their birth, is constantly threatened with eclipse. Twins therefore find it necessary to assert a cherished individuality and to demand individual recognition."

There is scientific proof, the article continued, that even identical twins are not carbon copies of each other. They are apt to begin life at different sizes and to grow at different rates. They have different aptitudes, talents, interests, and skills.

To help twins adjust to a world that thinks of them as one rather than as two, parents should:

—Dress twins differently and give them different toys.

—Treat them as individuals by playing up their special skills and talents.

—Refer to them by their names, never "the twins."

—Educate outsiders not to ask the twins, "Which one are you?"

—Encourage each twin to develop his own interests.

—Encourage each twin to cultivate some friends he can call his alone.

—Encourage each twin to spend some time on his own away from home.

Flora Rheta Schreiber wrote the article appearing in the May issue of the American Medical Association magazine.

Pre-Paid Medical Care . . . .

Edited by
RICHARD J. ACKART, M.D.

Medical Care in Surgical Cases

Perhaps the least understood provision of the Blue Shield Contracts is the exclusion of "medical services in surgical cases". Yet, the basic reason for this exclusion is the very one that keeps Blue Shield from covering "medical services in home or office"—the necessity for which omission most doctors recognize. It is a financial reason.

"What goes out must first come in" is a platitudinous way of explaining the truism that a health-care prepayment program must charge rates to subscribers which, in aggregate, will equal or slightly exceed the claims payments made under the program. Consequently, to keep subscriber rates at levels folks are willing to pay, prepayment programs must exclude some items of coverage; they cannot cover all items of service else the rates be too high. In order to keep its rates at acceptable levels, Blue Shield historically has provided for the services of but one doctor-in-charge per hospital case.

Oftentimes two doctors are necessarily involved—either concurrently or "in sequence", so to speak—but as a rule Blue Shield can make payment to only one. Paying both doctors in all such cases would increase Blue Shield's claims expense appreciably, and a commensurate increase in subscriber rates would thus be required. Although individual subscriber-patients might be willing to go along with an increase in their prepayment charges for this purpose, the public in general is decidedly antipathetic to rate increases for any purpose; an attempt by Blue Shield to adjust rates to provide for medical as well as surgical services in the same case might well be the last straw added to the prepayment load of an already over-burdened public.

In order to keep their premium rates competitively attractive—to undercut Blue Shield offerings—insurance companies frequently promote indemnity programs characterized by no provision whatsoever for any medical or non-operative care. Unfortunately, these surgical-only programs are sometimes more appealing than the wider, but necessarily more expensive, coverage of a Blue Shield Contract. If a patient with surgical-only insurance requires medical services in addition to surgery, the physician responsible for the former expects the patient to pay whatever fee is charged directly from his own pocketbook. Because of its contractually stipulated limitations, Blue Shield's coverage in similar cases is no different than that of the "surgical-only" policy referred to—no better, no worse. The patient has purchased a necessarily delineated coverage and must personally and directly pay for whatever services lie beyond the extent of that coverage.

The actuarily dictated exclusion of medical services in surgical cases, because it is clearly spelled-out in the Blue Shield Contract which the subscriber holds, is not a disfavor to any doctor. When Blue Shield contractually is unable to make payment for a certain doctor's services, those services—by definition—are completely extraneous to the subscriber's contract, and the doctor therefore can charge and collect what he wishes, his participation in Blue Shield notwithstanding, just as though there were no Blue Shield. When medical services in surgical cases are involved, the patient's obligation to the physician who rendered those services can more easily be fulfilled because Blue Shield helped him make payment of the surgeon's charges. Even in these cases, therefore, the "medical man" is benefited by Blue Shield operations.

And Blue Shield, of course, makes payments for in-hospital medical services whenever surgery is not also involved. It does so to the extent of a million dollars per year. Because Blue Shield makes payments for medical services when surgery is not necessary, and indirectly assists the physician in collecting his fee whenever it is, the Blue Shield program seems to warrant the active support and participation of "medical men" as well as of surgeons. Unless, of course, the individual physician looks upon Blue Shield as no more than a collection agency for his personal benefit, in which case he makes much of the possibility that a surgeon "gets more" out of the program than he does.

But Blue Shield is not a collection agency for individual doctors. The primary purpose of the Plan is to benefit subscribers; accordingly, Blue Shield

(*Continued on page* 410)

Current Currents

CARE OF AGED: The big news, as this issue goes to press, is a report that the House Ways and Means Committee has approved a limited program of government financed medical care for some ten million needy aged. The program is designed to benefit between 500,000 and 1 million of this group annually. The plan, adopted after nearly three months of executive sessions, is quite different from the plan offered by the Administration and those proposals backed by Labor.

In essence, the proposed plan follows the approach of the AMA 8-point program on Health Care of the Aged which was outlined by Dr. Orr in the May 16 issue of the AMA News. This, it will be recalled, stressed more help for the "near needy". The Committee's plan would offer Federal grants to states willing to pay part of the bills for hospitalization, nursing home, and other medical care for those over 65 not poor enough to qualify for public assistance. In doing this, the Committee has set up the concept of a "medically indigent" senior citizen.

Before approving its own plan, the Committee rejected Mr. Forand's proposal for the third time. The vote was 17 to 8, with all ten Republicans and seven Democrats opposed.

The measure drafted by the Committee is expected to be called on the House floor under a "no amendment" procedure.

ANTI-VIVISECTIONIST BILL: Senator Cooper (R. Ky.) and ten of his Democrat colleagues have introduced a bill which physicians will wish to watch closely. Favored by anti-vivisectionists, S. 3570 would affect recipients of Federal research grants, as well as government agencies engaged in scientific studies which involve the use of experimental animals.

HILL-BURTON: The latest report available from the Department of Health, Education and Welfare reports that 91 Hill-Burton projects have been completed and are in operation in Virginia. The projects were built at a total cost of $71,247,865, which includes a Federal contribution of $26,957,275. The projects made available 3503 additional beds.

Currently under construction are 20 projects designed to supply an additional 1000 beds. Twelve other projects, designed to supply 461 additional beds, have been approved.

HAVE YOU MADE YOUR RESERVATION FOR
THE 1960 ANNUAL MEETING
OCTOBER 9-12
VIRGINIA BEACH

VOLUNTARY HEALTH INSURANCE: Private health insurance in the United States is well on the way toward accomplishing what many experts in the field of social security have believed to be impossible, namely, near universal coverage of the entire population. This is the principal finding of a study conducted by Dr. Rita R. Campbell and Dr. W. Glenn Campbell and recently released by the American Enterprise Association.

Many of the findings of this study are pertinent to the current controversy concerning a national health program for the aged. On the question as to whether the aged can afford to pay for their own health care, the authors state that "based on the extensive evidence examined in this study, it seems clear that a substantial majority of today's aged can afford to pay for health insurance and that in the future the percentage will be even higher. Certainly the 4 million persons over 65 who are either employed or wives of employed persons can pay for their own health care. In addition, the almost universal coverage of OASDI, the continuing and rapid expansion of private pension plans, and the steadily increasing real national income are signs pointing to the future when the great majority of the retired aged will be, if they are not already, out of the category of those unable to pay for their own health care."

The authors describe the growth of private health insurance as "spectacular" and a "striking example of the unparalleled contributions that have been made to American life by voluntary and cooperative effort."

The study reveals that the percentage of the Nation's resources devoted to health is higher in the United States than in Great Britain—a country with governmental provision for medical care for all. It is pointed out that "experience with the British National Health Service clearly demonstrates that provision of health care by Government does not solve the problem of 'adequate' health care for all, as is so often claimed by proponents of compulsory health insurance."

DID YOU KNOW DEPARTMENT: In 1611, a Swiss medical writer attempted to prove that nostalgia was a disease, and that the action of soldiers deserting on the plea of homesickness was a physical ailment caused by changes in atmospheric pressure, as when a mountaineer went to live in the lowlands.

There were medical societies during the heyday of the Roman Empire and they annually offered prizes for the most brilliant cure effected by one of their members or for the invention of the best surgical instrument.

When the automobile first appeared, a staid New Englander said this new machine would soon divide mankind into two classes, the quick and the dead.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

"Immune Milk"

The term "immune milk" is used by W. E. Petersen, Ph.D., connected with the University of Minnesota's Department of Dairy Husbandry to designate milk from cows which have been treated with such substances as suspensions of killed pathogenic bacteria. When this is done under directions prescribed by Dr. Petersen, the milk produced is designated as "immune milk". Dr. Petersen and some of his associates believe that this milk is useful in treating arthritis and other conditions.

Public knowledge of this product probably came to Virginia first in 1959 when Dr. Petersen told a Blacksburg audience how he had injected disease organisms into cows' udders and produced milk which apparently cured his own arthritis and both arthritis and hay fever symptoms in other volunteer patients. He credited the results to antibodies formed in the cows' udders and transmitted into the milk.

On December 17, 1959, Dr. Petersen spoke at a short course for dairymen sponsored by the Richmond Agricultural Grange. Following this meeting, rather widespread interest in "immune milk" developed in several sections of the Commonwealth.

The first inquiry in regard to production of this product in Virginia came to the State Department of Health in a letter from the Director of Public Health of Hampton, dated November 27, 1959, in which the statement was made that a dairyman had applied for information concerning a permit to produce, process, and market this product. The opinion of the Health Director was that such a permit could not be granted under the Dairy Ordinance in operation in that locality.

On January 20, 1960, this dairyman with an associate who had agreed to produce "immune milk" visited the State Department of Health to discuss the matter. They were told that up to that date there was no knowledge that controlled studies had been made to substantiate the claim that antibodies produced in the cows were transmitted to humans through ingestion of the milk and resulted in the cure of rheumatoid arthritis.

It should be clearly demonstrated that the organisms used to develop antibodies produce the disease in question; that the disease is followed by immunity; that the organisms can be grown in sufficient quantity to prepare a vaccine effective in stimulating antibody formation; that there be standardization of antibody content of the product; that there be absorption of these antibodies; that there be proved a positive correlation between the presence of antibodies and resistance to infection; and finally, proof that treatment with the product resulted in alleviation of symptoms and cure of the disease. Moreover, if such controlled studies indicated that relief and cure were brought about through ingestion of "immune milk", such milk could not be produced by the same herd producing milk for consumption as food. It would have to be by another herd kept entirely separate as to pasture, housing, handling, etc., and under regulations established by the agency that would have control of the same.

It was later learned through the Virginia State Department of Agriculture that two dairies in another part of the State had had cows in their herds inoculated as Dr. Petersen directs and had produced "immune milk" for consumption by members of the families owning the cows and by friends to whom they had supplied the product.

Immediate separation from the herd of the cows used for production was ordered as well as discontinuance of use of this "immune milk". The supplies accumulated in their refrigerators were impounded.

The use of streptococcus vaccine in the treatment of rheumatoid arthritis was generally discarded over twenty years ago. There is no definitive work presently accepted that links the streptococcus, or any other virable agent with arthritis as the causative agent. This does not mean that such a relationship does not exist, only that none has been definitely established as yet.

A memorandum from the Medical Department of the Arthritis and Rheumatism Foundation released in the Fall of 1959, stated "It has been learned that an inter-faculty committee of the University of Minnesota (where this process originated) investigated in 1956 the claims for this product. No support could be found at that time for the claims advanced

for this milk and no evidence has appeared since then to change these conclusions—including the results of a small controlled study on patients with rheumatoid arthritis." In a letter from the College of Medical Sciences, University of Minnesota, February 8, 1960, the following statement is made in regard to the findings of the committee which considered this matter in the Fall of 1956: "After careful, prolonged discussion and consideration of the evidence at hand, the committee concluded unanimously that insufficient scientific evidence was at hand to warrant the statement that milk produced according to the ('immune milk') process will prevent human diseases of either infectious or allergic origin. It was added that 'It is the feeling of all members of our faculty familiar with this matter that careful, controlled clinical studies of the effectiveness of this product should be carried out in accordance with established scientific principles—to the best of our knowledge, no such studies have been done!"

In a statement made on February 9, 1960, by the Food and Drug Administration of the U. S. Department of Health, Education, and Welfare, the opinion was expressed that "It is our belief that 'immune milk' will meet the definition of a 'new drug' within the meaning of Section 201 (p) and will be subject to the provisions set forth in Section 505 of the Federal Food, Drug, and Cosmetic Act, Section 505 (and the applicable regulations) provide that a 'new drug' may not be distributed in interstate commerce except for investigational study by qualified experts prior to the time the sponsor of the new drug obtains an effective new-drug application—The Food and Drug Administration has not received a new-drug application for 'immune milk'."

In the Journal of the American Medical Association, February 27, 1960, there is a reply to a request to the Editor for an appraisal of "immune milk" as a remedy for arthritis; the answer concluded with the statement that "immune milk" is not recommended as a therapeutic agent for the management of patients with rheumatoid arthritis.

In a letter dated March 9, 1960, from the Division of Biologic Standards of the National Institutes of Health, U. S. Public Health Service, Department of Health, Education, and Welfare, there is the statement "as of this date no establishment is licensed to manufacture and sell 'immune milk' in interstate commerce, nor has an application for license been made." This letter was written because "immune milk" is now defined as a Biological Product and not strictly speaking, as a Drug. It is, therefore, the concern of the National Institutes of Health rather than of the Food and Drug Administration.

As a Biological Product (or as a Drug), in Virginia it becomes the concern of the State Board of Pharmacy. The Pharmacy and Drug Act of the Commonwealth of Virginia is administered by this Board. A provision of the Act is that "no person shall manufacture, make, produce, pack, package, or prepare any such preparations without first obtaining a permit so to do from the Board. Such permits shall be subject to such rules and regulations, with respect to sanitation and equipment, as the Board may from time to time adopt for the protection of the public health and safety."

Production of milk as a food product will continue to be the concern of the State Departments of Agriculture and of Health and the provision that milk cannot be "adulterated" (with the present broad interpretation of adulteration) will prevail.

Monthly Report of Bureau of Communicable Disease Control

	May 1960	May 1959	Jan.-May 1960	Jan.-May 1959
Brucellosis	2	2	13	9
Diphtheria	0	1	7	4
Hepatitis (Infectious)	60	25	422	189
Measles	917	3198	4652	12,170
Meningococcal Infections	5	10	31	47
Aseptic Meningitis	0	—	10	—
Poliomyelitis	0	6	0	7
Rabies (In Animals)	12	21	115	86
Rocky Mt. Spotted Fever	2	6	2	8
Streptococcal Infections	450	897	3443	5548
Tularemia	2	1	22	7
Typhoid	0	4	3	11

Miscellaneous....

National Legislation Is Your Concern

A most interesting and unusual meeting was held in Washington on March 24, 1960. Officers of The Medical Society of Virginia and members of the Committee on National Legislation entertained Virginia's Congressional Delegation with a luncheon in the Speaker's Dining Room at the Capitol.

During the luncheon, our members heard Representatives and Senators give voice to thoughts and suggestions which should be heeded by everyone. The remarks of Representative Howard Smith were particularly timely and to the point, and he was requested by Dr. Vincent Archer to set them down for publication in the Virginia Medical Monthly. Representative Smith's response follows, and your Editors hope that every member will read it at least twice:

I do not remember just what I said to the group of the Virginia Medical Society concerning their lack of participation in public affairs. Certainly it was not intended to single out the doctors but was used as an illustration of the alarming lack of interest, concern, and knowledge of the gradual drift of our country away from constitutional precepts into a socialized system of government.

Our legislation is being framed by organized, minority groups serving their own self interest while the vast majority of our sound-thinking, conservative citizens engrossed and busy with their own personal problems are not exerting the tremendous influence that they could exercise in arousing people to a realization of what is happening to their government, which, after all, is the most important business that any of us have.

Members of Congress are badgered, abused, and threatened by these minority groups, and Congressmen are naturally influenced by what they believe to be the majority sentiment.

I know of no group who as individuals have more personal contacts and influence with these people than the doctors in their respective communities. If organized, they could be a tremendous influence to halt the headlong flight into socialism.

I will give you an illustration: The great national labor unions exercise a virtual veto power over legislation in the Congress. Last year when the Landrum-Griffin Labor Bill was before the Congress, following the disclosure of racketeering and lawlessness, there was very little hope at the beginning of the fight that effective legislation could be enacted. Suddenly, the American people became aroused. Congress was flooded with letters and telegrams from ordinary citizens that let Congress know that the people meant business. We carried the first test vote by less than a dozen. When the final vote came, we carried it by 303 to 125, and, as I recall, when it finally came to a vote in the Senate there was only one single vote against it. This vividly illustrates that the people still run this country when they take the trouble to do so.

That is what I was trying to say to your group, and no group is better fitted to aid in an educational campaign to halt our steady march down the road to socialism. Not just socialized medicine, but the many other projects, starting from a modest beginning and growing into great burdens upon an already overburdened budget.

Rushing Into Health Insurance

The proponents of Federal health insurance have almost succeeded in pulling off a brilliant coup: They have leaped nimbly over the question of whether they should be any such program at all, and now propose merely to haggle about the details. Which will you have? The Forand bill? The Javits bill? Mr. Eisenhower's scheme? And they would like us to make up our minds quickly. Congress won't be in session long, you know.

It is time for the American people, and especially those in the productive labor force, to dig in some stubborn heels and cry "no" to all these proposals. Federal health insurance involves far more than a mere "extension of Social Security" or a "needed new welfare program." These schemes contemplate a fundamental change, vast and far-reaching, in the American way of life.

Sugar-coat this pill as you may, Federal health insurance amounts to socialized medicine. Under the Forand bill, any person entitled to Social Security benefits would be entitled to a wide variety of hospital and surgical services at public expense. Here, as in Great Britain, we would have "participating hospitals" and "participating doctors," and here, as in Great Britain, the plan would be subject to the abuses that inescapably accompany any such pro-

gram. The liberal Republican bill, sponsored by New York's Senator Javits and others, at least retains some voluntary features and has the merit of going beyond the Social Security rolls. The complex measure hastily thrown together by Mr. Eisenhower and put forth as the administration's plan is at once better and worse than the others.

But to measure these various plans merely in terms of their less objectionable features is like judging sobriety in terms of being tiddly, tight, or falling-down drunk. All of the plans have one common fault before their degree of wrongness enters into the picture: They all propose the establishment of a system by which the government would provide medical services, out of taxes, for a great part of the population.

The basic objections do not end there. Any program of health insurance that might be adopted in the hectic closing days of this congressional session would be no more than an entering wedge. Hospitalization and surgical benefits for persons over 65, with incomes under a certain level, swiftly would grow into benefits for everybody regardless of income. That is the historic course of government welfare programs of every sort. They have enormous political appeal to a gullible public which imagines that all this comes "for free."

It isn't "for free." At the most optimistic estimate, the first year's cost, under any of the plans, would amount to probably $2 billion. The money would have to come from wage earners, in the form of higher Social Security taxes or in other taxes paid to Federal or State governments. Once the program became established, voluntary programs of health insurance, offered by taxpaying insurance companies, would be sabotaged. To the higher burden of taxes would be added the loss to the economy of the private programs.

This is not to say that a serious problem does not exist in medical care for the aged. Soaring costs of hospitalization and drugs have in fact imposed a severe hardship on persons with fixed incomes. An enlightened society has a duty to overcome this situation, and if congressional furore over Federal health insurance serves to goad the insurance companies and the American Medical Association into effective action, some good will emerge from a political evil.

We believe this problem can be solved, over a period of years, through voluntary insurance coverage, coupled with some expansion in existing programs of hospitalization for the indigent. So long as the principle of nationalized medicine is avoided, room will remain for States and localities and private groups to experiment with various remedial plans. But as certainly as Congress rushes into an ill-considered plan now, just as certainly will a revolution have been worked on the American people. The public has not been prepared for such a program, and no considerations of election year politics possibly can justify a plunge into socialized medicine as a device for buying votes.

The Richmond News Leader, May 12, 1960.

Pre-Paid Medical Care . . .

(*Continued from page* 406)

arranges through its contracts to make that one permissible payment which—at least in 95 cases out of 100—will provide the greater financial benefit to the subscriber. Blue Shield does not favor one doctor over another. The Plan is designed to favor the subscriber-patient to the greatest extent feasible, and just as soon as we lose sight of this motivation and come to think of Blue Shield solely as a means of helping our incomes or collection problems, our doctor-public relations will be so impaired that we will lose our currently effective voice in determining the future of medical practice.

Editorial . . . .

Off the Editorial Chest

THE WILD PROLIFERATION of medical literature is becoming an old story. Our best intentions of keeping abreast are becoming ever more thwarted. The day has just so many hours. This does not soften the jolt to find that some segment of medical knowledge that should be the common fund of us all, like the newer chromosomal biology, has passed us by. What are some of the things that the three major participants in the problem—reader, writer, editor—can do about it?

1. Reader: He may try the newer techniques of increasing his reading speed and comprehension. The physician's arduous training would have weeded out any with serious reading difficulties, however. More effectively, he can seek out those journals that are symposium-minded, like that successful little periodical, Disease-a-Month,* each issue of which is devoted to the total approach of a single disease or group of related diseases.

2. Writer: Without this participant there would be no problem. Nevertheless, it is better he is overproductive than underproductive. Ideally, all works that are honest, free of gross error or bias, unless essentially repetitive, merit seeing the light of day. The stern judge of time will decide which will live and which will die.

The author's style should be lean without being malnourished. Regardless of his experience, he might profit from the little book by the late Professor Strunk,** of Cornell.

The writer's major contribution to the solution of the problem lies, I believe, in his *summary* (if the merit of publication is assumed). How often do we see such a one as this: "Ninety-six cases of _____ syndrome are presented, with details on the etiology, symptomatology and management". The reader must spend valuable time in searching the body of the paper for these details, and only then will he know if the yield was worth the search. A writer in command of his material can make the summary contain its *essence* in few lines; the reader need refer to the body of the paper only for supporting data and amplification.

3. Editor: He can enforce the technical details of style and summary as noted above in each paper accepted for publication. Beyond this, editorial responsibility for accepting and rejecting papers is awesome. He, with others he may consult, must judge the product that could have taken months or years a-borning. He must guard against the prestige of the author or institution rubbing off on the paper; in similar vein but opposite direction, he must guard against *lack* of prestige of author or institution rubbing off on the paper.

The superabundance of acceptable material is a problem to certain journals of international stature. They might consider devoting a section to publishing *useful* summaries by the authors of papers they now reject but which are honest and substantial, though perhaps less "timely" than those they print in full. The writer might have the paper mimeographed in full. If the published summary evokes interest, the reader may request a copy of the complete paper from the writer at nominal cost.

The editor might lean toward publishing more symposia in his journal. The reader will find much of fundamental nature about a subject from this multi-disciplined approach that has eluded him over the years. The contributors to the symposia do the work in picking up the significant threads from home and abroad, and weaving them into a useful and substantial fabric.

CHRISTIAN V. CIMMINO, M.D., F.F.R.
Fredericksburg, Virginia

* Disease-A-Month. The Year Book Publishers, Inc., Chicago.
** Strunk, William, Jr. The Elements of Style. The Macmillan Company, New York, 1959.

News Notes . . . .

New Members.

Since the list published in the June issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Jose D. Coll, M.D., Richmond
Robert W. Fry, M.D., Suffolk
Pierce Daniel Nelson, M.D., Norton
Robert Joseph O'Donnell, M.D., Falls Church
Walter Stauffer Price, M.D., Hampton
Lily Ruckstuhl, M.D., Fairfax
Stanley Melvin Sager, M.D., Winchester
David Hamilton Smith, M.D., Fairfax
Anthony Vincent Torre, M.D., Roanoke

Virginia Academy of General Practice.

At the annual meeting of the Academy held at Virginia Beach, May 13-15, Dr. Boyd H. Payne, Staunton, was installed as president, succeeding Dr. Fletcher J. Wright, Jr., Petersburg. Dr. William J. Hagood, Jr., Clover, was named president-elect, and Dr. A. L. VanName, Jr., Urbanna, vice-president. Dr. B. W. Nash, Timberville, Dr. R. D. Keeling, South Hill, and Dr. Raymond S. Brown, Gloucester, were elected directors. Dr. S. F. Driver, Roanoke, and Irvin Rifkin, Richmond, hold over as secretary and treasurer, respectively.

Dr. Thaxton Honored.

At the annual Nelson County Day, held in May, Dr. J. F. Thaxton, Tye River, was one of those honored for meritorious service. He has practiced in Nelson County since 1911 and until his retirement six years ago. He was further honored by having his granddaughter being selected as the Miss Nelson County beauty contest winner.

Other recipients of the award were Dr. W. L. Watts of Gladstone who had practiced in the County since 1905 and Miss J. Gertrude Ligon who has done much work with the county health program.

Dr. Robert Hale Harrington,

Marion, has been elevated to the eminent grand commandership of the Knights Templar in Virginia.

Virginia State Health Department

Dr. R. W. Jessee, Director of the Dickenson-Russell-Wise Health District, has been promoted to the staff of the State Department of Health as Regional Director of the Division of Local Health Services. He will have headquarters in Richmond.

Dr. J. D. Creger, Assistant Director of the Dickenson-Russell-Wise Health District, has succeeded Dr. Jessee as director of this district.

Dr. Nellie R. Dorsey has been appointed as Assistant Director of the Dickenson-Russell-Wise district and will assume her position upon the completion of a three-month period of orientation.

Dr. Malcolm Tenney, Jr., has been assigned as Director of the Amherst-Nelson Health District and will assume his position upon the completion of a three-month period of orientation.

Dr. John L. Chesnut has been appointed as Director of the Buchanan-Tazewell Health District.

Dr. J. B. Kenley has been transferred from the directorship of the Fluvanna-Goochland-Louisa Health District to the Augusta-Staunton-Waynesboro District.

Dr. E. C. Gates, recently Acting Director of the Dinwiddie-Prince George-Surry-Sussex Health District during the educational leave of Dr. W. R. Ferguson, has been appointed as successor to Dr. Kenley in the Fluvanna-Goochland-Louisa District.

Dr. W. R. Ferguson has completed the M. P. H. degree at Tulane University and has returned to his former assignment as Director of the Dinwiddie-Prince George-Surry-Sussex District.

Dr. R. S. LeGarde has completed the M. P. H. degree at Johns Hopkins University and has returned to his former assignment as Director of the Culpeper-Greene-Madison-Orange District.

The City of Portsmouth has entered into a cooperative agreement with the State Department of Health for the operation of its health services effective July 1, 1960. Dr. S. A. Graham, Jr., will continue as director of this department.

Dr. John R. Saunders,

Richmond, has assumed his duties as speaker of the Assembly of District Branches of the American Psychiatric Association. He was elected to this office last year and will service for one year.

Certified in Obstetrics and Gynecology.

The following Virginia physicians received final certifications by the American Board of Obstetrics

and Gynecology on April 15th:

William Maury Bangel, M.D., Newport News
Richard Russell Chamberlain, M.D., Roanoke
William Agee Cook, Jr., M.D., Lynchburg
Clifford Henry Fox, M.D., University
Louis Henry Keffer, Jr., M.D., Warwick
Dean Harrington Martin, M.D., Arlington
Norman Sherwin Propper, M.D., Wise
Louis Howard Williams, M.D., Richmond

Dr. William H. Muller, Jr.,

University of Virginia, has won the University's President and Visitors Research Prize. This was awarded to him and Dr. John H. Vansant, assistant resident, at the annual meeting of Sigma Xi, national honorary scientific society. It was the first time in the 36-year history of the competition that the award has been made for surgery. The winning paper was on experimental evaluation of internal mammary artery ligation as method of myocardial revascularization.

Cancer Seminar.

The tenth biennial Southeastern States Cancer Seminar for Physicians will be held at the Cherry Plaza Hotel, Orlando, Florida, November 16-18, 1960. The theme "New Horizons of Cancer Research and Therapy" will feature an outstanding faculty of fourteen nationally prominent guest speakers.

For advance reservations or further information, contact 1960 Cancer Seminar Committee, 17 Lake Street, Orlando, Florida.

Practices Sixty Years.

Dr. L. G. Richards, Chamblissburg, celebrated his sixtieth year of practice on April 26th. He was too busy with his practice to remember the date. Dr. Richards practiced in Roanoke until several years ago when he decided to retire. One day, driving from Roanoke to Lynchburg, by way of Chamblissburg, he recognized a former patient who told him the people of that area were looking for a physician. Dr. Richards said he would be their doctor until they found someone and he has been there for the past three years.

Dr. and Mrs. Calvin T. Burton,

Roanoke, have recently returned from a five weeks trip to Europe. Dr. Burton attended a clinical meeting of the Chapter of the International College of Surgeons in Nice and the 12th biennial International College of Surgeons World Congress in Rome.

Dr. Lionel M. Lieberman,

Hampton, was recently elected chairman of the Hampton Jewish Community Council.

Practice for Sale.

District of Columbia Metropolitan Area—heart of Arlington, Virginia (population approximately 170,000). Active EENT practice established 28 years. Fifty percent ophthalmology. Fully equipped office in building with other specialists. Packing lot. Will lease. Reason: sudden death. Write—office, 1007 North Highland Street, Arlington, Virginia, or resident, 5302 North 18th Street, Arlington. Further information furnished upon request. (*Adv.*)

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Obituaries . . . .

Dr. Clarence Vernon Montgomery,

Prominent physician of South Hill, died June 4th, at the age of seventy-eight. He graduated from the former University College of Medicine, Richmond, in 1905, and had practiced in South Hill since that time. He and his brother, Dr. Ben Montgomery, practiced together for quite a while, the latter moving to Alberta in recent years.

Dr. Montgomery retired from practice two years ago when he fell and broke his hip. In an interview five years ago, he stated he had delivered about 2,000 babies, including two sets of triplets and so many

twins that he had lost count. He was an honorary member of the staff of the Community Memorial Hospital.

Dr. Montgomery had been a member of The Medical Society of Virginia since 1905 and was a 50-Year Member.

Besides his brother, he is survived by his wife, a son and a daughter.

Dr. Dibrel Crowder Mayes,

Well-known physician of Dinwiddie County, died at his home in Church Road, May 21st. He was seventy-nine years of age and a garduate of the Medical College of Virginia in 1905. Dr. Mayes practiced for a year in the mountains of West Virginia, following which he located in Dinwiddie County. He had been a member of The Medical Society of Virginia since 1908.

Dr. Mayes is survived by his wife and two sons.

Dr. Robert Daniel Glasser,

Norfolk, died May 21st. He was born in Lithuania and was seventy-three years of age. Dr. Glasser graduated from the Medical College of Virginia in 1912 and had practiced in Norfolk for forty-eight years. He was on the staff of DePaul Hospital, serving as chief of the gynecological service for eighteen years. Dr. Glasser was a former president of the Zionist Organization and of the Torch Club of Norfolk. He had been a member of The Medical Society of Virginia for forty-seven years.

Dr. Glasser is survived by his wife and three daughters.

Dr. Charles Edward Conduff.

Charles Edward Conduff was born at Willis, Floyd County, June 18, 1883, and died January 27, 1960, age 76.

After attending Floyd County graded schools and the Mountain Normal Private School at Floyd, he entered the study of Medicine at Lincoln Memorial University, Medical Department, Knoxville, Tennessee, and received the degree of Doctor of Medicine in 1908.

He then did general practice in Riner, Springwood and Hollins, before coming to Roanoke.

In 1926 he completed a course in Proctology at Cook County Hospital in Chicago, after which he continued the practice of proctology until he was forced to retire because of his health.

He was a member of Roanoke Academy of Medicine, The Medical Society of Virginia, American Medical Association, Southern Medical Association and the American Academy of Ambulant Proctology.

Dr. Condruff is survived by his wife and three sons.

Be It Therefore Resolved that the Members of the Roanoke Academy of Medicine mourn the passing of Dr. Condruff and extend deepest sympathy to his widow and other members of his family and

Be It Further Resolved that a copy of this resolution be sent to Mrs. Ruby Poff Condruff and a copy be spread upon the minutes of the Roanoke Academy of Medicine and a copy be sent to The Medical Society of Virginia.

T. A. Kirk, Jr., M.D.
C. H. Peterson, M.D.
I. H. Hurt, M.D., *Chairman*

Dr. Meyer.

On April 5, 1960, the physicians of the Arlington County Medical Society were deeply grieved by the sudden death of our Associate Member, Dr. William Meyer.

For the past thirty-six years he has served the people of Herndon and Northern Virginia with deepest feelings of responsibility, reliability and humility.

His hours were endless, his smile never waned, his humanitarian efforts were untold, his sincerity unquestioned. His loss to family, medicine and the thousands he so faithfully served can never be recouped.

Be It Resolved, therefore, that in this simple way, the Arlington County Medical Society extends its sympathy to Mrs. Meyer.

Be It Further Resolved, that this resolution become a part of the minutes of the Arlington County Medical Society.

K. Charles Latven, M.D.
Thomas A. McGavin, M.D.

Dr. Taylor.

Dr. Arthur Hasting Taylor who had practiced General Medicine for several years in Suffolk, died on March 31, 1960.

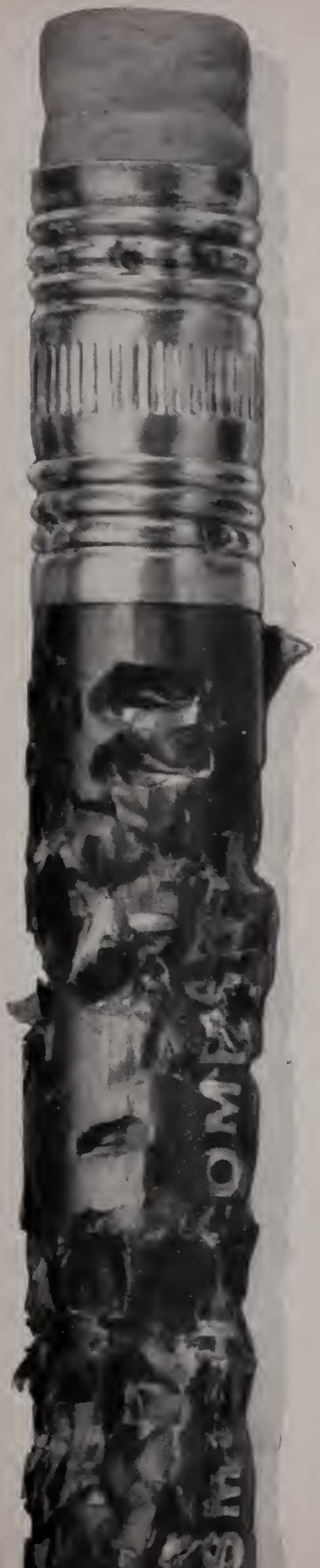
Dr. Taylor was a member of the Tri-County Medical Society since he came to Suffolk to practice. He was also a member of The Medical Society of Virginia, American Medical Association, and the Trudeau Society. Among other medical and civic activities he was Medical Director of the local Civil Air Patrol, Clinical Advisor of the Tri-County Tuberculosis Clinic and a member of the Staff at Louise Obici Memorial Hospital and at one time Chief of the section of General Practice.

Dr. Taylor was a veteran of World War II having served in the Medical Corp of the U. S. Army.

He was a man of many talents and a great lover of the outdoors and sports. He will be missed by both the members of the Tri-County Medical Society and the Staff at Louise Obici Memorial Hospital and also by the many patients that he cared for.

Be It Resolved that a copy of these resolutions be made a part of the minutes of the Tri-County Medical Society and that copies be sent to his wife and children and to the Virginia Medical Monthly.

M. M. Bray, M.D.
E. C. Joyner, M.D.



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Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. *80*:481 (Oct.) 1958. 2. Ferrand, P. T.: Minnesota Med. *41*:853 (Dec.) 1958. 3. Mathews, F. P.: Am. J. Psychiat. *114*:1034 (May) 1958.

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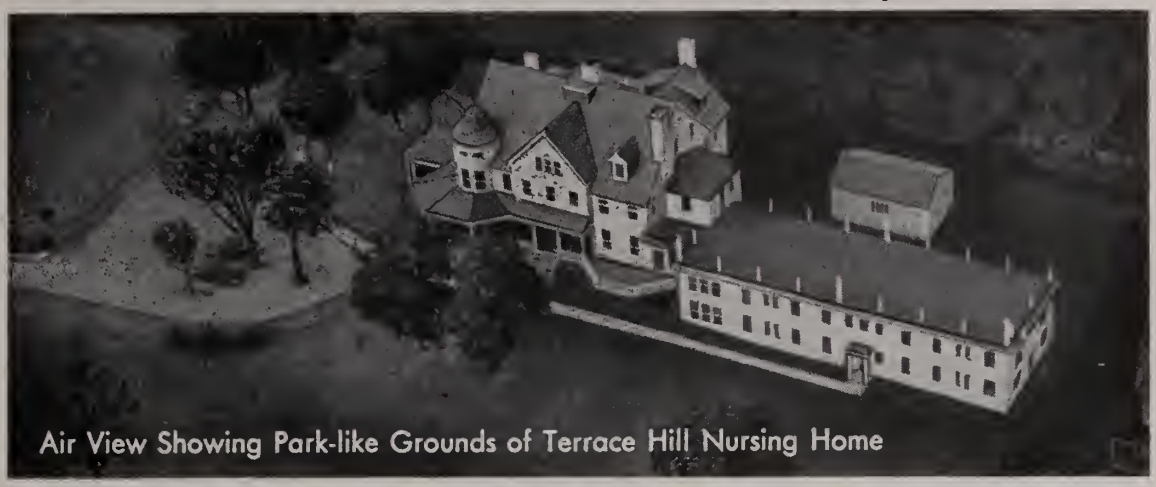

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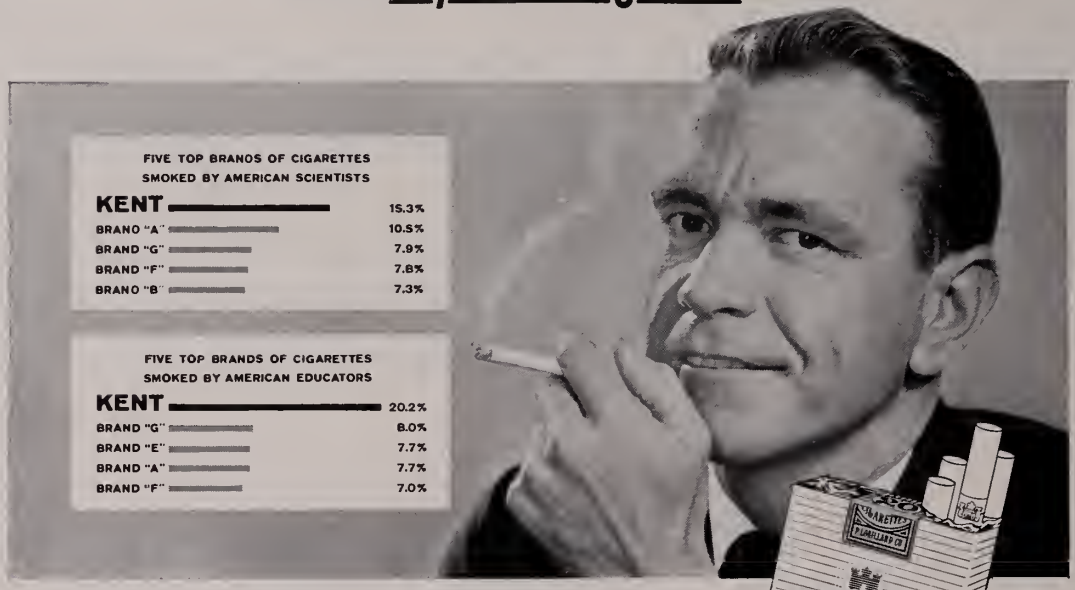

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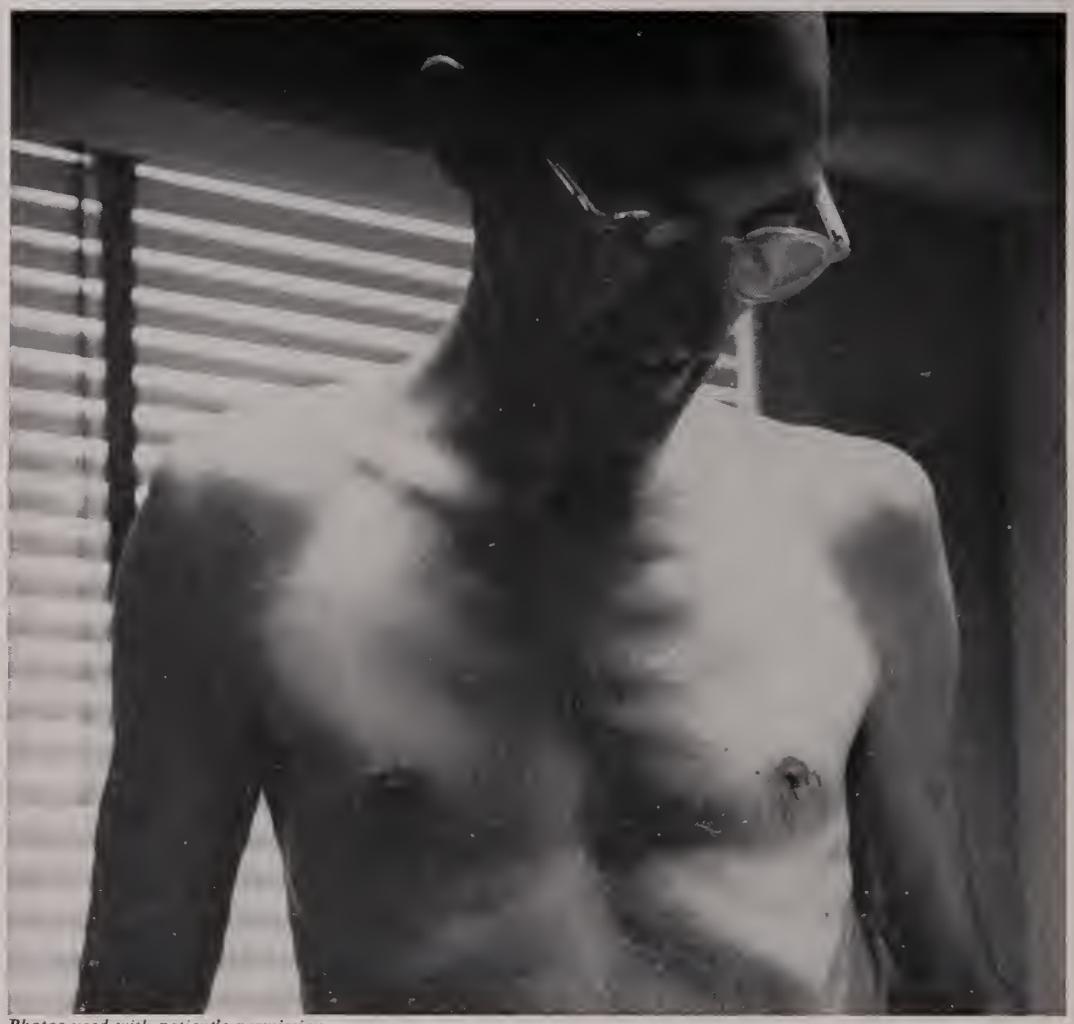

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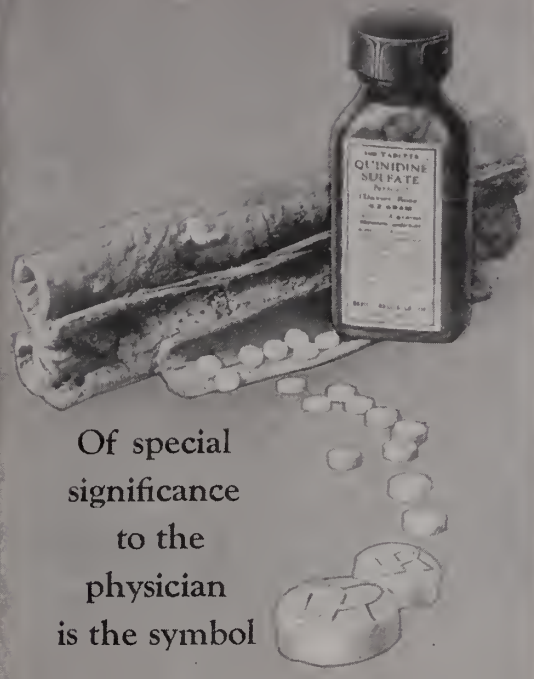

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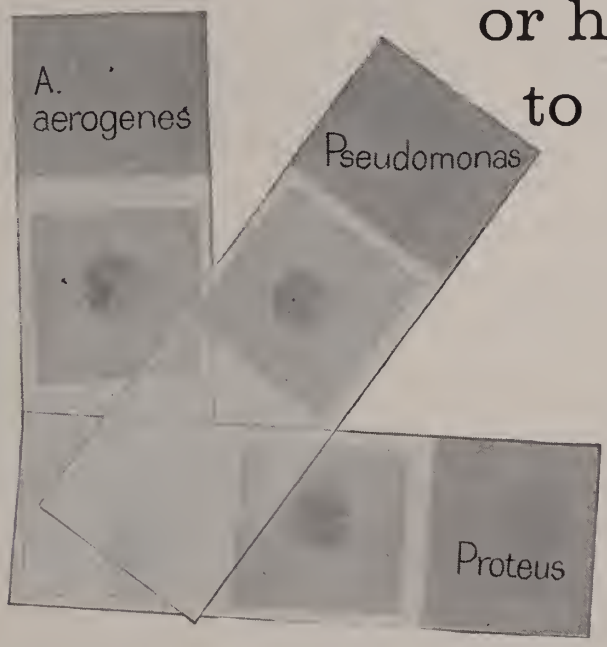

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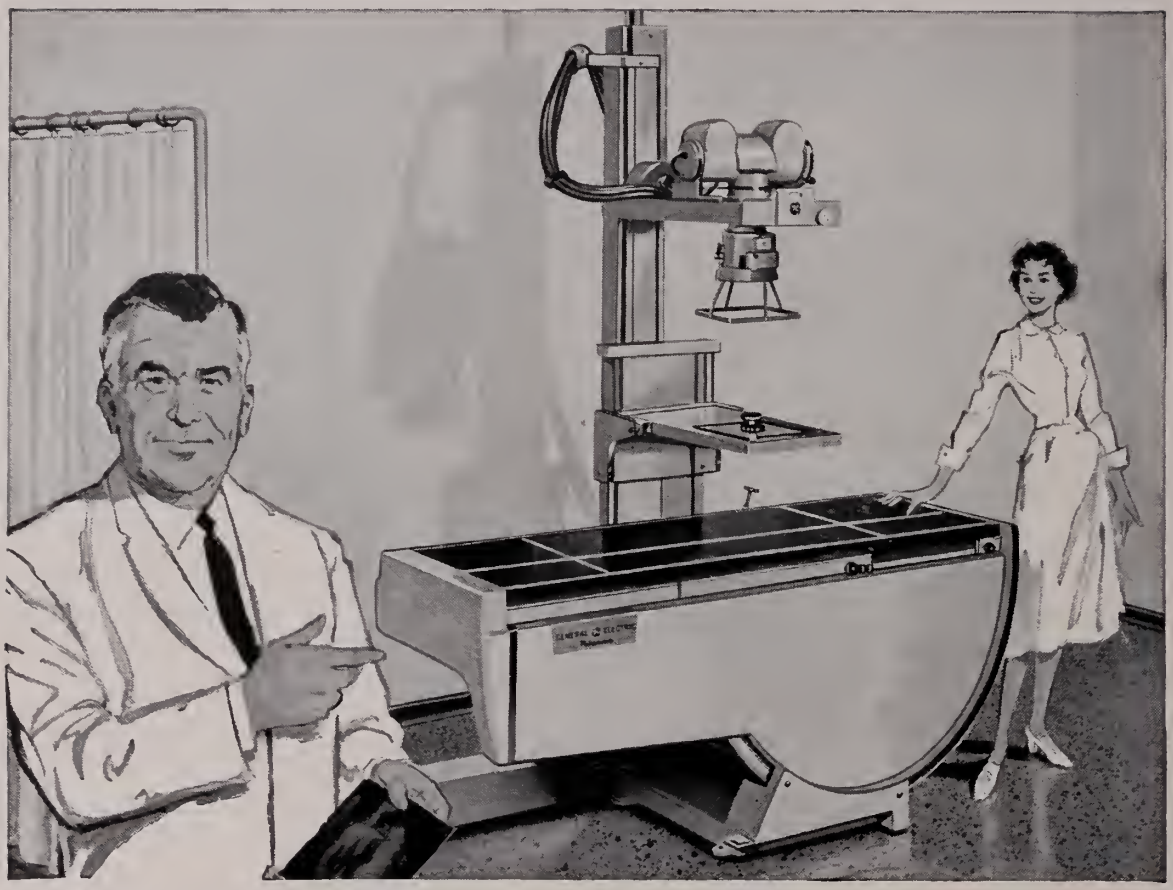

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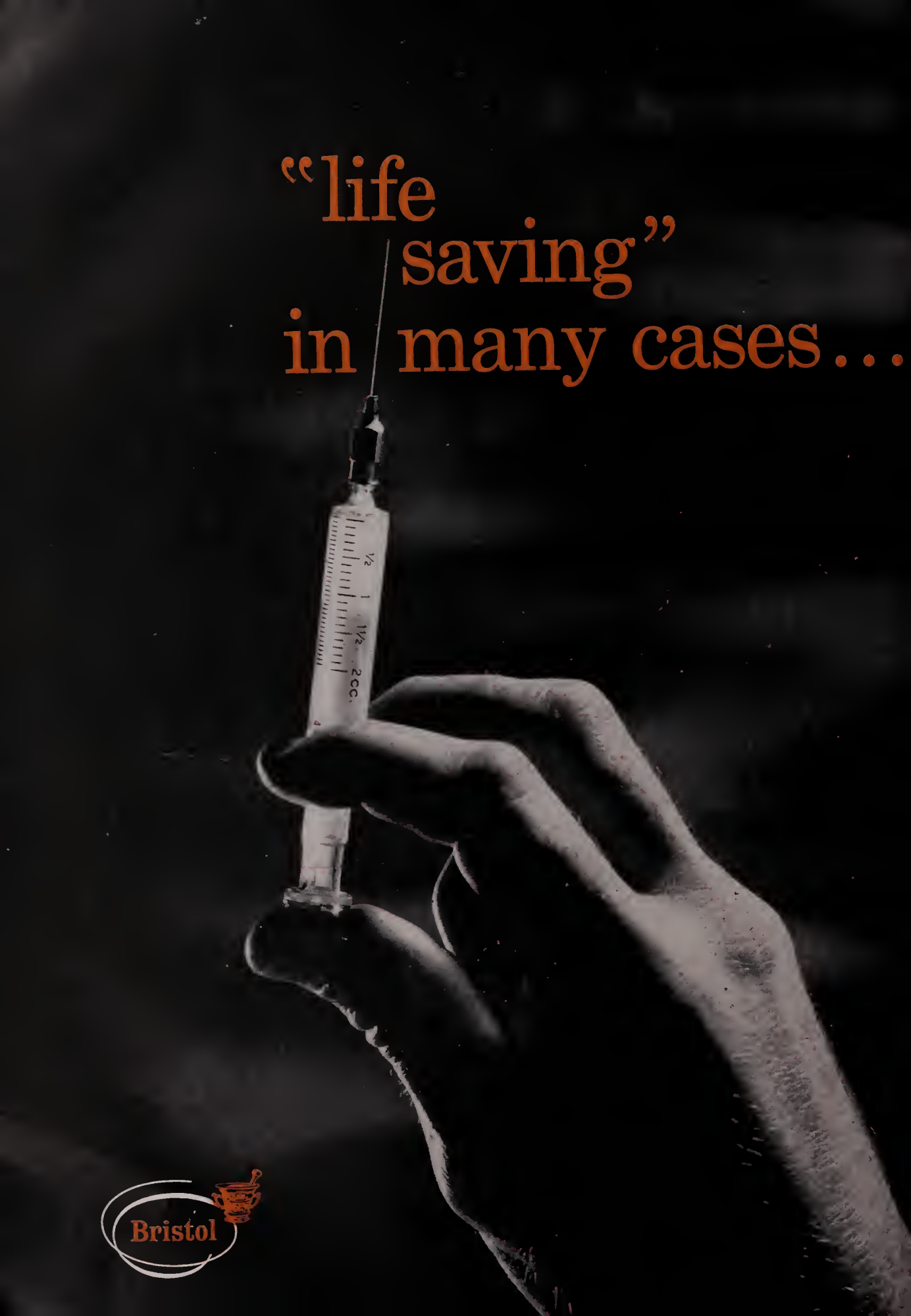
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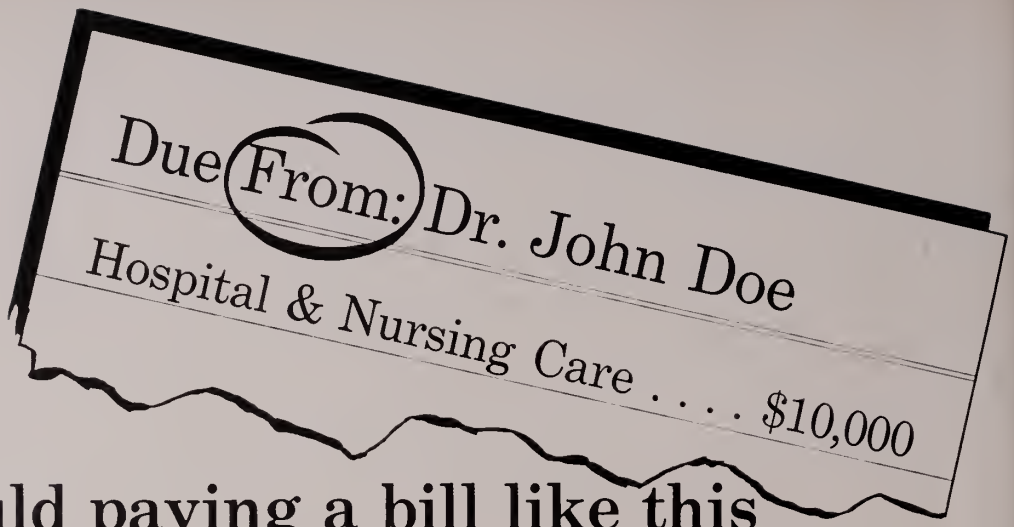

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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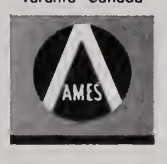

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1. Goddard, E.S.: in *Trifluoperazine, Further Clinical and Laboratory Studies*, Philadelphia, Lea & Febiger, 1959.

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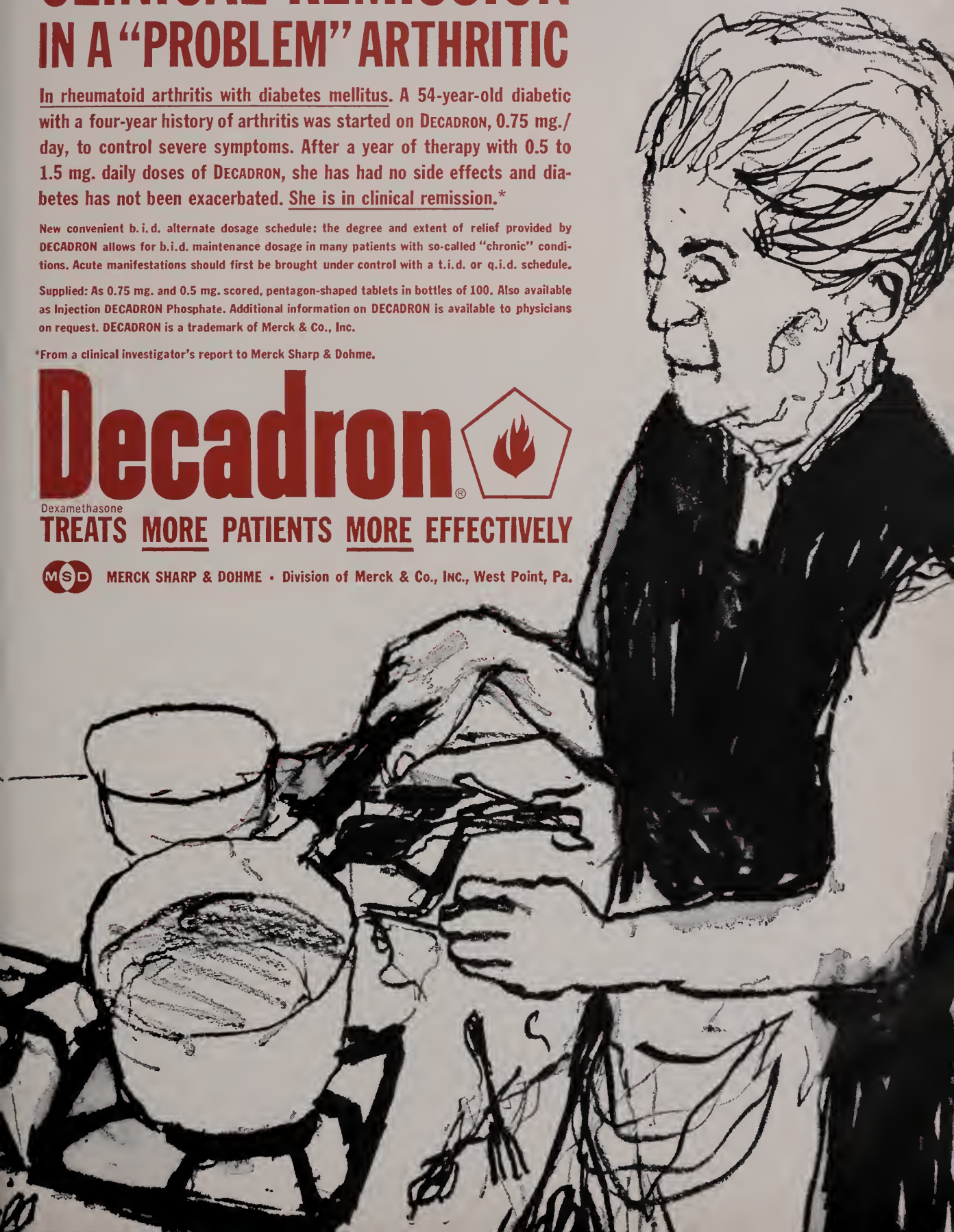

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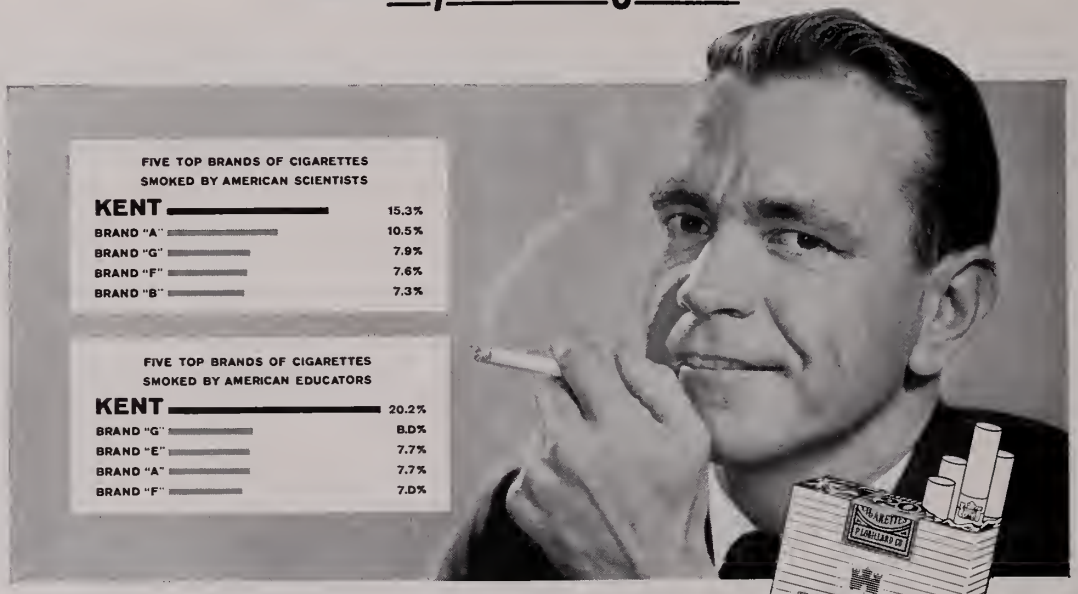

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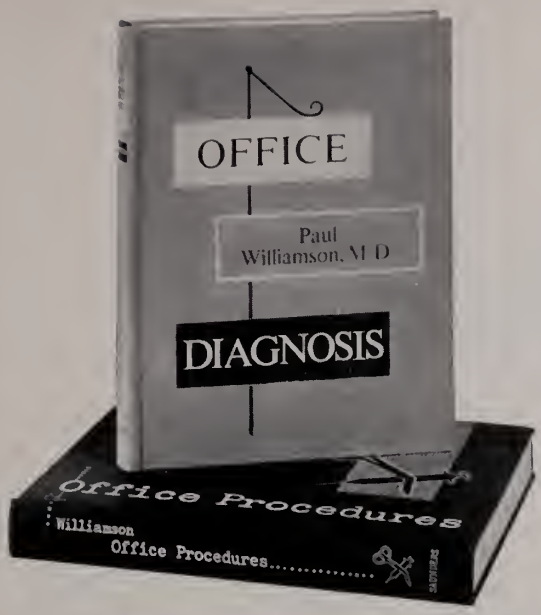

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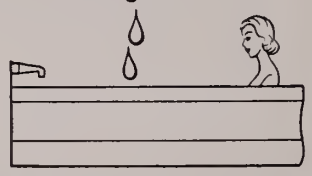

1. Spoor, H. J.: N. Y. State J. Med., Oct. 15, 1958

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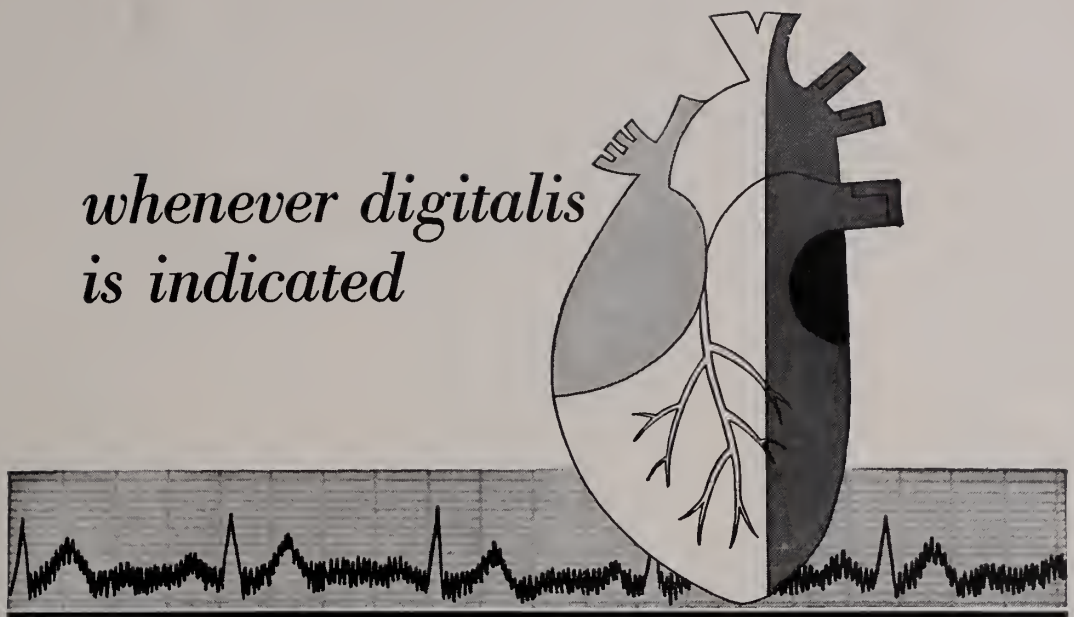

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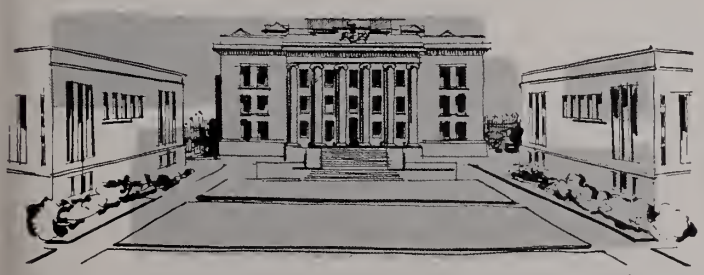

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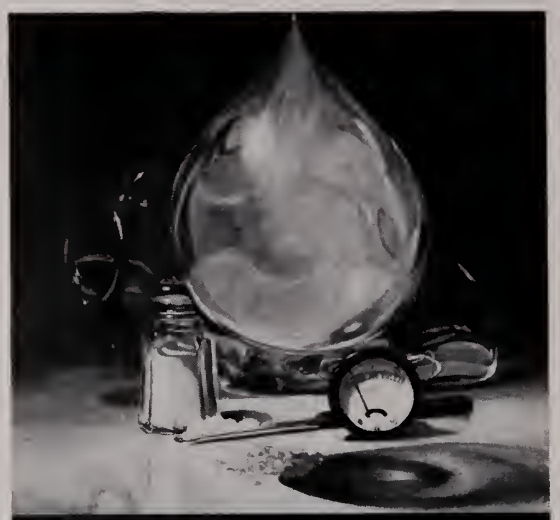

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Although Naturetin causes the least serum potassium depletion as compared with other diuretics, supplementary potassium chloride in Naturetin c̄ K provides added protection when treating hypokalemia-prone patients; in conditions where likelihood of electrolyte imbalance is increased or during extended periods of therapy.

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■ the most potent diuretic, mg. for mg.—more than 100 times as potent as chlorothiazide ■ prolonged action — in excess of 18 hours ■ maintains its efficacy as a diuretic and antihypertensive even after prolonged or increased dosage use ■ convenient once-a-day dosage — more economical for patients ■ low toxicity — few side effects—low sodium diets not necessary ■ not contraindicated except in complete renal shutdown ■ *in hypertension*—significant lowering of the blood pressure. Naturetin may be used alone or with other antihypertensive drugs in lowered doses.

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References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 2. Stenberg, E. S., Jr.; Benedetti, A., and Forsham, P. H.: Op. cit. 5:46 (Feb.) 1960. 3. Fuchs, M.; Moyer, J. H., and Newman, B.E.: Op. cit. 5:55 (Feb.) 1960. 4. Marriott, H. J. L., and Schamroth, L.: Op. cit. 5:14 (Feb.) 1960. 5. Ira, G. H., Jr.; Shaw, D. M., and Bogdonoff, M. D.: North Carolina M. J. 21:19 (Jan.) 1960. 6. Cohen, B. M.: M. Times, to be published. 7. Breneman, G. M., and Keyes, J. W.: Henry Ford Hosp. M. Bull. 7:281 (Dec.) 1959. 8. Forsham, P. H.: Squibb Clin. Res. Notes 2:5 (Dec.) 1959. 9. Larson, E.: Op. cit. 2:10 (Dec.) 1959. 10. Kirkendall, W. M.: Op. cit. 2:11 (Dec.) 1959. 11. Yu, P. N.: Op. cit. 2:12 (Dec.) 1959. 12. Weiss, S.; Weiss, J., and Weiss, B.: Op. cit. 2:13 (Dec.) 1959. 13. Moser, M.: Op. cit. 2:13 (Dec.) 1959. 14. Kahn, A., and Greenblatt, I. J.: Op. cit. 2:15 (Dec.) 1959. 15. Grollman, A.: Monographs on Therapy 5:1 (Feb.) 1960.

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Each 5 cc teaspoonful provides one-fourth the above formula.

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and mild tranquilizer

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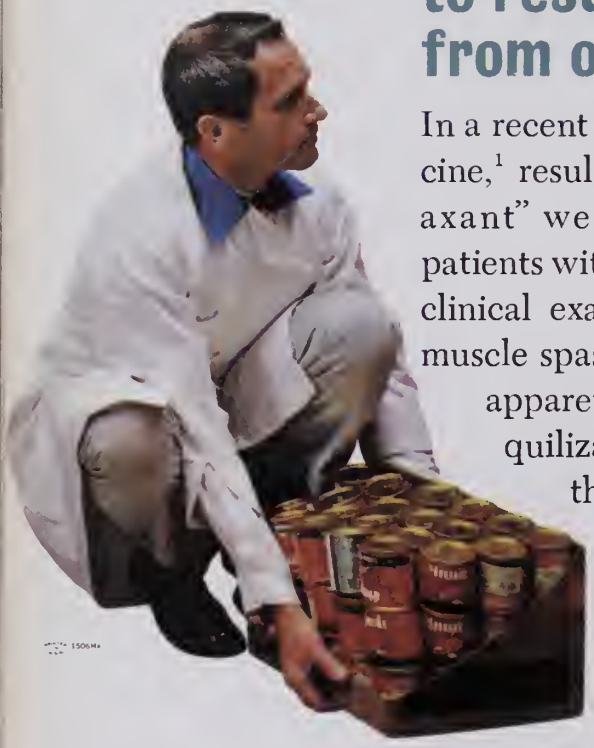

In a recent study of Trancopal in industrial medicine,[1] results from treatment with this "tranquilaxant" were good to excellent in 182 of 220 patients with muscle spasm or tension states. From clinical examination of those patients in whom muscle spasm was the main disorder, ". . . it was apparent that the combined effect of tranquilization and muscle relaxation enabled them to resume their normal duties in from twenty-four to forty-eight hours. . . . It is our clinical impression that Trancopal is the most effective oral skeletal muscle relaxant and mild tranquilizer currently available."[1] Side effects occurred in only 12 patients, and: "No patient required that the dosage be reduced to less than one Caplet three times daily because of intolerance."[1]

Clinical results with *Trancopal*®[1]

	Excellent	Good	Fair	Poor	Total
LOW BACK SYNDROMES					
Acute low back strain	25	19	8	6	58
Chronic low back strain	11	5	1	1	18
"Porters' syndrome"*	21	5	1	1	28
Pelvic fractures	2	1	—	—	3
NECK SYNDROMES					
Whiplash injuries	12	6	2	1	21
Torticollis, chronic	6	2	3	2	13
OTHER MUSCLE SPASM					
Spasm related to trauma	15	6	1	—	22
Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
TENSION STATES	18	2	4	3	27
TOTALS	112 (51%)	70 (32%)	23 (10%)	15 (7%)	220 (100%)

*Over-reaching in lifting heavy bags resulting in sprain of upper, middle, and lower back muscles.

Dosage: **Adults, 200 or 100 mg. orally three or four times daily.**
Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets®
200 mg. (green colored, scored), bottles of 100.
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1. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960.

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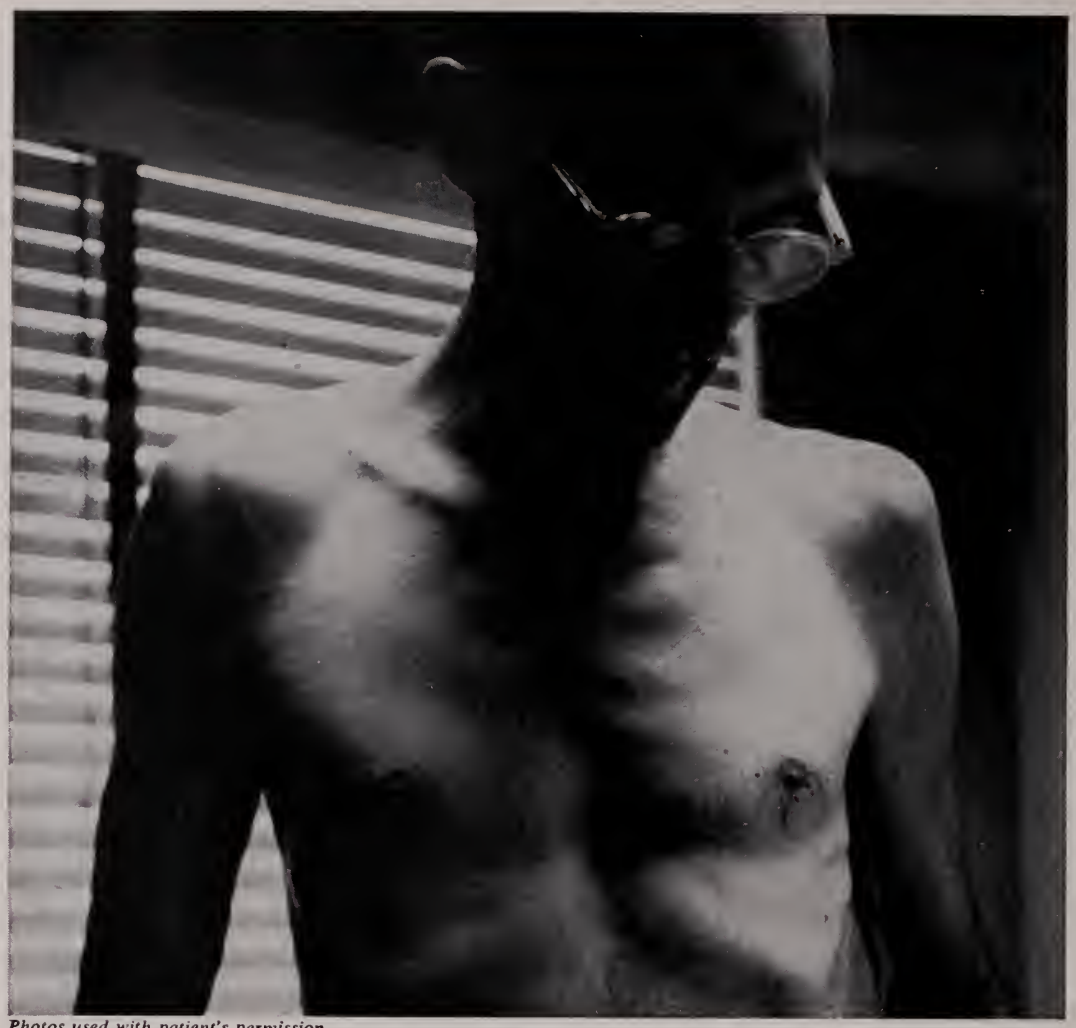

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How new Dianabol rebuilt muscle tissue in this underweight, debilitated patient

Patient was weak and emaciated before Dianabol. R. C., age 51, weighed 160 pounds following surgery to close a perforated duodenal ulcer. His convalescence was slow and stormy, complicated by pneumonia of both lower lobes. Weak and washed out, he was considered a poor risk for further necessary surgery (cholecystectomy). Because a conventional low-fat diet and multiple-vitamin therapy failed to build up R. C. sufficiently, his physician prescribed Dianabol 5 mg. b.i.d.

Patient regains strength on Dianabol. In just two weeks R. C.'s appetite increased substantially; he had gained 9½ pounds of lean weight. His muscle tone was improved, he felt much stronger. After 4 weeks, he weighed 176 pounds. Biceps measurement increased from 10" to 11½". For the first time since onset of postoperative pneumonia, his chest was clear. Mr. C.'s physician reports: "He tolerated cholecystectomy very well and one week postop felt better than he has in the past 2 years."

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By promoting protein anabolism, Dianabol builds lean tissue and restores vigor in underweight, debilitated, and dispirited patients. In patients with osteoporosis Dianabol often relieves pain and increases mobility.

As an anabolic agent, Dianabol has been proved 10 times as effective as methyltestosterone. Yet it has far less androgenicity than testosterone propionate, methyltestosterone, or norethandrolone.

Because Dianabol is an oral preparation, it spares patients the inconvenience and discomfort of parenteral drugs.

And because Dianabol is low in cost, it is particularly suitable for the aged or chronically ill patient who may require long-term anabolic therapy.

Supplied: *Tablets,* 5 mg. (pink, scored); bottles of 100.

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Niacin	50 mg.
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LEPTINOL is a safe central nervous stimulant. LEPTINOL is highly effective in confused states of elderly patients. Incipient psychosis of senility, with its warning symptoms of loss of interest, egocentricity, hypochondriasis, insecurity and intolerance can frequently be ameliorated.

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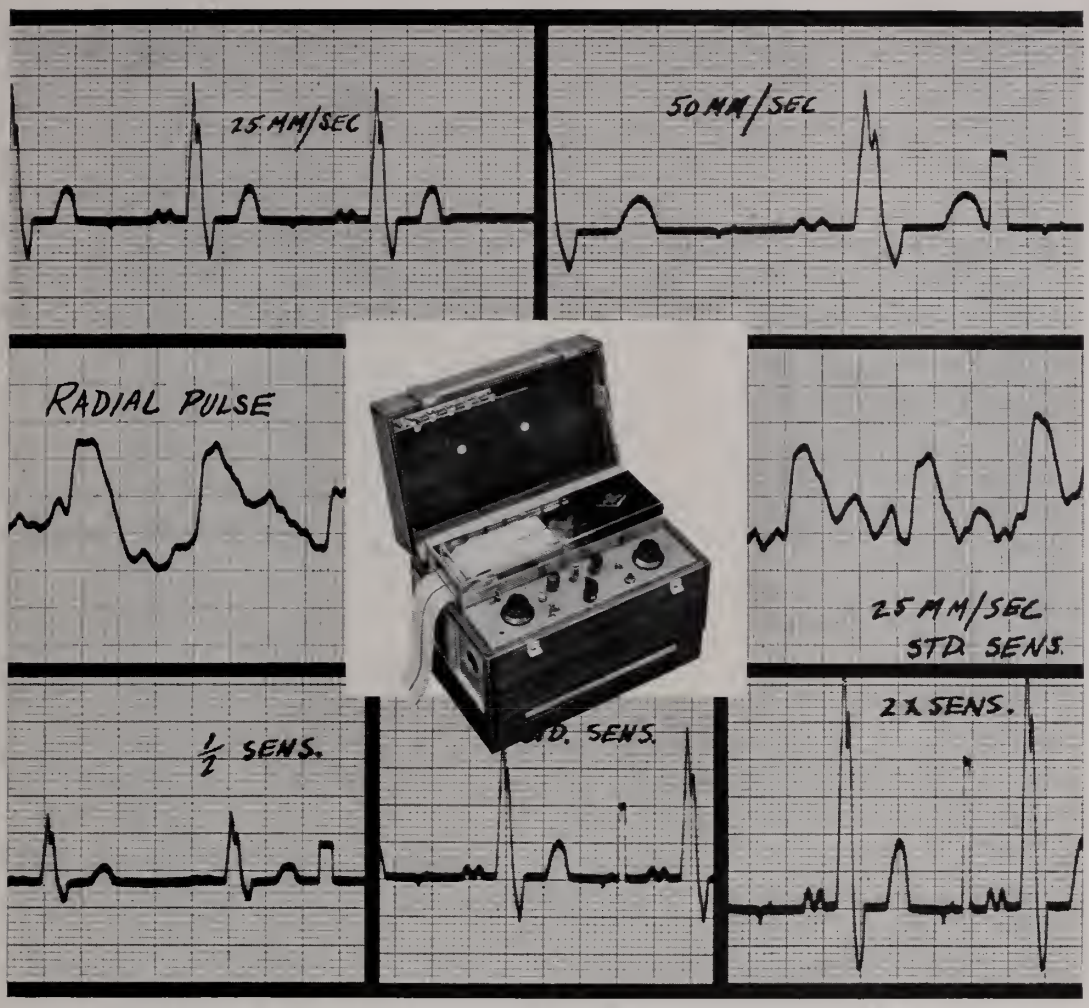

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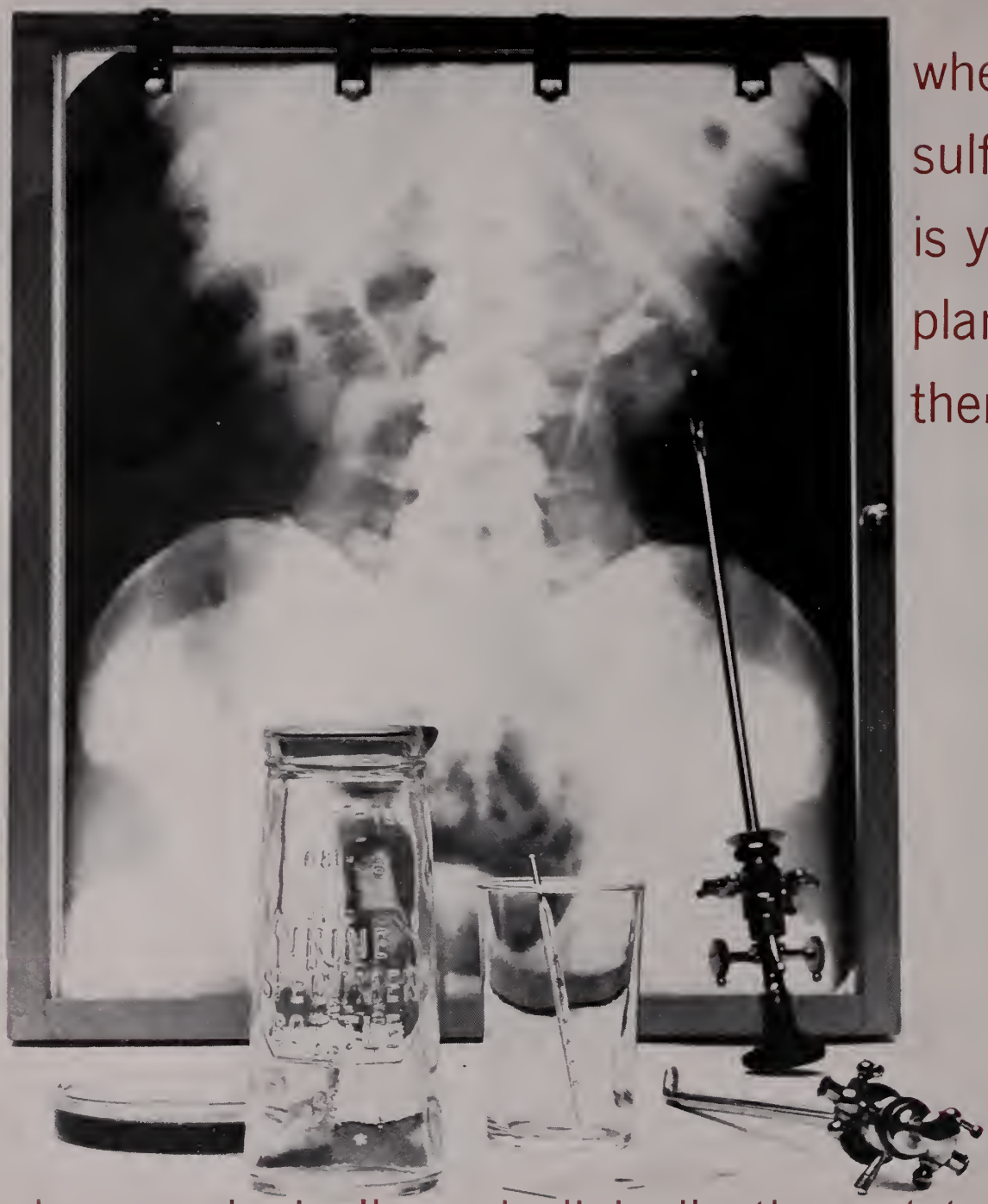

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Rapid peak attainment — for early control — KYNEX® Sulfamethoxypyridazine reaches peak plasma levels in 1 to 2 hours[1,2] . . . or approximately one-half the time of other once-a-day sulfas.[2] Uninterrupted control is then sustained over 24 hours with the single daily dose . . . through slow excretion without renal alteration.

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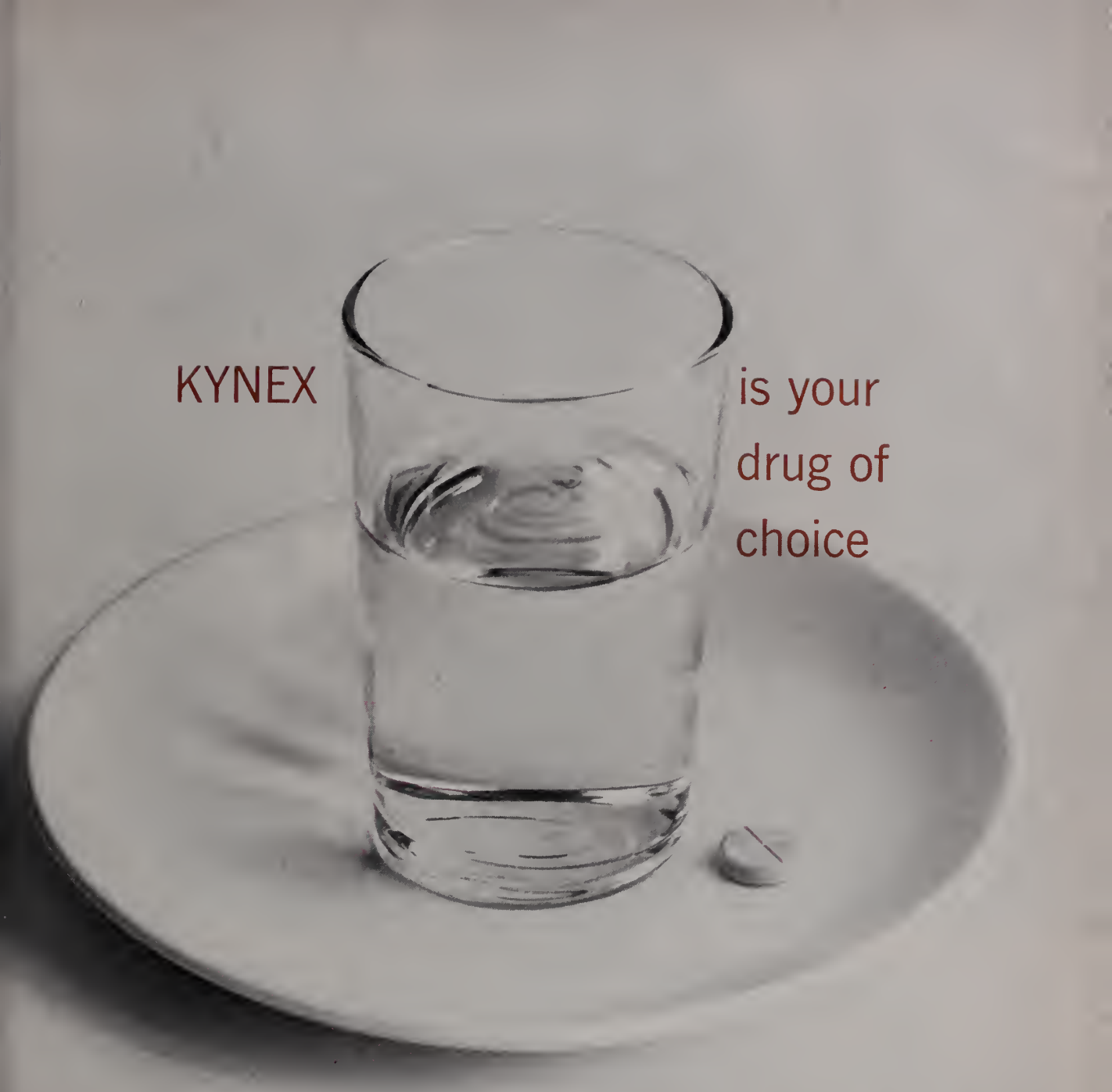
Successful against these organisms: streptococci, staphylococci, E. coli, A. aerogenes, paracolon bacillus, Gram-negative rods, pneumococci, diphtheroids, Gram-positive cocci and others.

1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: Antibiotic Med. & Clin. Ther. 3:378, (Nov.) 1956. 2. Boger, W. P.: Antibiotics Annual 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: Antibiotic Med. & Clin. Ther. 5:604 (Oct.) 1958. 4. Vinnicombe, J.: Ibid. 5:474 (July) 1958. 5. Anderson, P. C., and Wissinger, H. A.: U. S. Armed Forces M. J. 10:1051 (Sept.) 1959. 6. Roepke, R. R.; Maren, T. H., and Mayer, E.: Ann. New York Acad. Sc. 60:457 (Oct.) 1957.



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Sulfamethoxypyridazine Lederle

NEW—for acute G.U. infection AZO-KYNEX® Phenylazodiaminopyridine HCl—Sulfamethoxypyridazine Tablets, contains 125 mg. KYNEX in the shell with 150 mg. phenylazodiaminopyridine HCl in the core. Dosage: 2 tablets q.i.d. the first day; 1 tablet q.i.d. thereafter.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Squibb Announces Chemipen

Squibb Alpha-Phenoxyethyl Penicillin Potassium

new chemically improved penicillin which provides the highest blood levels that are obtainable with oral penicillin therapy

As a pioneer and leader in penicillin therapy for more than a decade, Squibb is pleased to make Chemipen, a new chemically improved oral penicillin, available for clinical use.

With Chemipen it becomes possible as well as convenient for the physician to achieve and maintain higher blood levels—with greater speed—than those produced with comparable therapeutic doses of potassium penicillin V. In fact, Chemipen is shown to have a 2:1 superiority in producing peak blood levels over potassium penicillin V.*

Extreme solubility may contribute to the higher blood levels that are so notable with Chemipen.* Equally notable is the remarkable resistance to acid decomposition (Chemipen is stable at 37°C. at pH 2 to pH 3), which in turn makes possible the convenience of oral treatment.

And the economy for your patients will be of particular interest—Chemipen costs no more than comparable penicillin V preparations.

Dosage: Doses of 125 mg. (200,000 u.) or 250 mg. (400,000 u.), t.i.d., depending on the severity of the infection. The usual precautions must be carefully observed with Chemipen, as with all penicillins. Detailed information is available on request from the Professional Service Department.

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*Knudsen, E. T., and Rolinson, G. N.: Lancet 2:1105 (Dec. 19) 1959.

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she calls it "nervous indigestion"

diagnosis: a wrought-up patient with a functional gastro-intestinal disorder compounded by inadequate digestion. **treatment:** reassurance first, then medication to relieve the gastric symptoms, calm the emotions, and enhance the digestive process. **prescription:** new Donnazyme—providing the multiple actions of widely accepted Donnatal® and Entozyme®—two tablets t.i.d., or as necessary.

Each Donnazyme tablet contains
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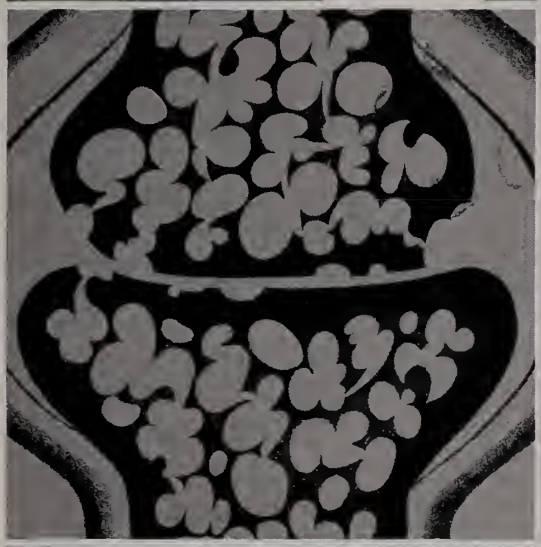

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Guest Editorial . . . .

The Selection of a Professor

A PLEA is made for broader consideration before selecting a person to fill a responsible teaching assignment, especially in the selection of those who are to head the various clinical departments of a medical school. The first criterion in the choice of a teacher in a college or a university is likely to be, as Charles G. Osgood of Princeton so well described, "not whether he has the humanistic passion, nor whether he has a Credo, but whether he is an expert in some narrow field, and is making it known to the world in print."

A narrow field, of course, implies specialization, and it is useless to blame or deplore specialization. It has of necessity come to stay; the fields of knowledge have become so many and so wide. However, specialization and true humanistic teaching are not incompatible, but one must bear in mind the further statement of Professor Osgood: "What must be remembered is that the human mind has no greater capacity for knowledge than it ever had. If it fills itself with highly specialized knowledge in a narrow field, it limits to that field its competence to judge or generalize, and that field contains but a very small holding in the wide realm of the whole truth. The actual effect —the deleterious effect upon the specialist—may be twofold. Either knowing right well how hard it is to gain a bit of exact knowledge even in a narrow field, the specialist modestly feels himself incompetent to judge in the larger fields of life and disclaims any authority or conviction in matters moral or spiritual. Or, as in certain known instances, the vanity of his expertness vaunteth itself; he believes that his recognized authority in one narrow compartment of knowledge qualifies him to utter judgment in the transcendent ranges of the human spirit. The very cocksureness of

his unripe oracles often impresses, or depresses or perverts the immature undergraduate mind. In either case the true human balance is wanting."

It is of primary importance that the individual who is selected for the responsible teaching assignment be an expert in his chosen field or work. It is of equal importance that he not "scatter his shots" and divert his abilities into too many fields of endeavor.

He should, however, have demonstrated a willingness to participate in the prosaic as well as the esoteric. He must be ready to cope with problems dealing with closer relationships between the faculty and the ordinary physicians, with problems of the social aspects of medicine. He must not shun these responsibilities by withdrawing into his laboratory behind the safety of 17-ketosteroid estimations. He should have certain inherent qualities of "command," including a natural dignity, modesty, and quiet force. Of great advantage is an ability to meet people easily, to show a willingness to respect their ideas, to have a native cheerfulness or friendliness, and a sense of humor. Above all, anyone having so much control over the destinies of young people should have a magnanimity of spirit.

I. Ridgeway Trimble, M.D., F.A.C.S.

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Dr. Trimble is Associate Professor of Surgery at Johns Hopkins University.

2947 Saint Paul Street
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What Price Antimicrobial Prophylaxis

HARRISON F. FLIPPIN, M.D.
Philadelphia, Pennsylvania

The use of antimicrobial drugs prophylactically has become widespread. This practice is frequently of little value and is often harmful.

THE YEAR 1960 represents the 25th anniversary of the historic publication by Domagk describing the antibacterial properties of sulfanilamide (Prontosil). Certainly, the discovery, development and use of sulfanilamide and the other antimicrobial drugs in the control of infectious diseases have created new possibilities for health and longevity that would have seemed unbelievable even as recently as twenty-five years ago. A glance at old figures (before 1935) dealing with the problem of infectious disease by modern standards would indicate that these drugs have proved effective in combating certain types of infections but success in this direction has been offset by the increasing incidence of infections due to organisms against which existing drugs are less potent. The answer to this problem would appear to come from research directed towards a better understanding of the profound changes produced by the antibiotics in the host and in his total bacterial flora, rather than from the development of new antimicrobial agents.[1] Until these fundamental problems are more fully understood, the practicing physician can best contribute to the welfare of his patient by following certain principles of therapy. For the most part, indications for the use of the antimicrobial agents in the treatment of established infections are well defined but there are confusion and lack of agreement concerning the usefulness of the antimicrobial agents as prophylactic measures. The purposes of this presentation is an attempt to define the role of these drugs in the prevention of infections.

Presented before The Norfolk County Medical Society, April 19, 1960, Norfolk, Virginia.

FLIPPIN, HARRISON F., M.D., *Professor of Clinical Microbiology, The Graduate School of Medicine, The University of Pennsylvania.*

PROPHYLACTIC ANTIMICROBIAL THERAPY

As a consequence of the successful treatment of many types of infections with these drugs, attempts have been made to prevent infection by the administration of these agents prophylactically. Many practicing physicians, if not the majority, use antimicrobial agents for this purpose. Some believe that they are really helping to reduce the frequency of serious infections; other physicians give the drugs reluctantly and with apologies. Not infrequently, the physician may rationalize that even though the primary illness cannot be expected to respond to the antimicrobic drugs, they might act prophylactically to prevent hypothetical bacterial complications. The magnitude of this problem is reflected in the fact that in most of our hospitals the majority of patients receive these drugs. Likewise, it was found[2] that only 7.9 per cent of the population in a single community failed to receive antimicrobial therapy in a five-year period and that, even by the most lenient criteria, such treatment was warranted for less than one-half of the illnesses so treated.

UNTOWARD ANTIMICROBIAL EFFECTS

Since antimicrobial prophylaxis is not an entirely safe procedure, we may review briefly some of the more important untoward effects which may follow its use. The continued usefulness of an anti-infective agent largely depends upon the rapidity and number of microorganisms' developing resistance to the drug and the incidence and severity of toxic reactions associated with its use. In general, both of these factors appear to be related to the frequency and intensity with which the drug is used. The unwise application of and poor planning with the sulfonamides, particularly as prophylactic agents, undoubtedly led to the premature limitation of their usefulness. However, more recently, with the less widespread use of these drugs, the number of drug-resistant organisms has decreased; and, with the consequent development of a large population who had no previous exposure to the sulfonamides, the incidence of untoward reactions to this group of agents has lessened. Likewise, the early enthusiastic

use of chloramphenicol was followed by almost complete abandonment of this valuable agent because it was unequivocally implicated in a number of serious, often fatal, blood dyscrasias. Fortunately, this led, for a time, to a more cautious use of chloramphenicol and, for the most part, in selected cases, thus insuring its place in therapy. More recently, however, with the increasing number of stubborn infections, many of which are effectively treated with this drug, the trepidation with which chloramphenicol was formerly used has been somewhat disregarded and the antibiotic is now being administered more indiscriminately. Likewise, penicillin, streptomycin, the tetracyclines, erythromycin and other useful antibiotics are often poorly selected, not needed, or used unwisely, thus limiting their future usefulness.

DRUG-RESISTANT ORGANISMS

For the most part, acquired bacterial resistance to the antibiotics results from continued exposure of organisms to sub-inhibitory concentration of these drugs. Penicillin, in contrast to the other commonly used antibiotics, has long been considered unique, in that, with the exception of a small percentage of staphylococci, there was no real evidence of penicillin-resistant strains of microorganisms cultured from patients. For the most part little tolerance or resistance to penicillin has been developed by the Group A hemolytic streptococcus, pneumococcus, or meningococcus. Similarly, there is no evidence that Treponema pallidum develops resistance to pencillin in vivo. Nevertheless, there has been a progressive increase in the number of penicillin-resistant staphylococci, which is perhaps related to the promiscuous use of pencillin over recent years, particularly in hospital practice. The effect of penicillinase-producing staphylococci in the nasopharynx may possibly be an important factor in the efficacy of penicillin in streptococcal infections, especially in hospitalized patients. More recently, pencillin-resistant strains of gonococci are being reported from scattered areas and it is probably only a matter of time until penicillin resistance will be met on an increasing scale all over the world. In the light of what is known of the mechanism of action of penicillin, there is no reason to believe that other organisms will not develop resistance to the drug.

Of all the antibiotics, streptomycin exhibits the greatest potential for the development or emergence of resistant strains. Likewise, dihydrostreptomycin behaves in the same manner and cross-resistance between this antibiotic and streptomycin is complete. Novobiocin and members of the erythromycin group —erythromycin, oleandomycin, and speramycin— may show rapid and significant increases in resistance, especially among staphylococci, streptococci viridans, and enterococci. Cross-resistance occurs among the erythromycin-like drugs, whereas there is no cross-resistance between novobiocin and any other antibiotic. Resistance to the tetracyclines has occurred in a large proportion of staphylococci, especially those isolated in hospitals where these agents have been used extensively over long periods, as well as among enterococci, E. coli, Proteus, and Shigella. In a recent study[3] it was found that the transmissibility of the staphylococci, principally drug-resistant strains, was considerably increased among hospitalized patients receiving therapy with tetracycline. In view of these facts, tetracycline alone or in combination with oleandomycin should not be employed prophylactically, particularly in hospital practice. Resistance to chloramphenicol occurs infrequently, except in cases which have been intensively treated with the antibiotic. The incidence of resistant strains of bacteria to kanamycin has likewise remained exceedingly low. Resistance and cross-resistance have not been recorded with the polypeptide group—bacitracin, polymyxin, and neomycin. The risk of the emergence of resistant strains of tubercle bacilli to isoniazid is still not definitely determined. Initially suspectible strains in a species can and do develop resistance to the sulfonamides. Thus far, it appears that bacteria may develop only a limited resistance to the nitrofurans (nitrofurazine, nitrofurantoin, furazolidone, furaltadone).

DRUG TOXICITY

For the most part, every known chemical substance can produce a toxic reaction in man if the exposure is adequate, thus making the use of these agents by man a potential hazard. Admittedly, penicillin is the least toxic of the antibiotics. This advantage, however, cannot be interpreted in favor of its continued use since it is also the most allergenic and is the one most frequently involved in fatal cases. Although the true incidence of allergy to penicillin is unknown, there can be little doubt that it is increasing every year and at the present time represents the primary problem in drug allergy. It has been estimated that about 10 per cent of our population are prone to become sensitive during their lifetime to some food, drug, cosmetic, or other substance. Thus, in this country alone we are concerned with some 17 million individuals who may react to a

penicillin contact. There are a variety of types of allergic reaction to penicillin, the most important being the immediate anaphylactic type, which may vary from a few urticarial lesions, or asthma, to shock, unconsciousness and death. For the most part, these reactions begin shortly after the administration of the antibiotic, with the more severe manifestations occurring most rapidly; the majority of fatalities occur within seconds to ten minutes. Although these reactions may follow any route of administration of penicillin, it is well established that serious allergy to the drug is most likely to occur following parenteral administration, especially after repeated intramuscular injections; whereas the oral route is least likely to initiate severe hypersensitivity reactions. This can be explained partly by the fact that when reactions develop following oral medication, they are usually slow enough to treat symptomatically, thus the progression of the reaction usually can be interrupted. Allergic manifestations to topical application of penicillin seem to be confined largely to the milder cutaneous reactions, although sensitization to the drug occurs most often following this route of administration; sensitization is least apt to develop with oral penicillin. Thus far, most of the severe reactions have occurred in patients having a history of allergic symptoms from previous administrations of penicillin or in individuals usually suffering from asthma, hay fever, or eczema. Hence, the incidence of hypersensitivity reactions to penicillin may be reduced if an allergic history is obtained before the drug is administered. However, a careful history will not reveal all the potential allergic reactions, in that prior exposure to unknown sensitization to penicillin by means of the ingestion of penicillin-containing milk and its products, or foods containing penicillium type moulds (Roquefort cheese, etc.), the injection of vaccines containing penicillin, the use of penicillin-contaminated syringes, or by the absorption through the skin of dermatophytes may pave the way for a later unpredictable reaction to the therapeutic use of penicillin. In view of the relatively high incidence of severe allergy to injectable penicillin, it would seem advisable to employ oral penicillin except for the prevention of diseases in which the parenteral route has proven more effective, such as syphilis, or where oral medication is impractical.

Like penicillin, streptomycin also produces sensitization and may be responsible for fever and rashes of varying severity. The major toxic effect of this drug, however, is on the eighth cranial nerve, producing vestibular damage or deafness; the former is most frequent with streptomycin, and the latter with dihydrostreptomycin. Because of the increasing incidence of patients with irreversible hearing loss attributable to dihydrostreptomycin, the manufacturers have recently discontinued its production. In contrast to penicillin, hypersensitivity reactions to chloramphenicol, erythromycin, and the tetracyclines have not been observed except in rare instances with the last group of drugs, but these antibiotics may cause varying degrees of gastrointestinal irritation. Most of the severe reactions, however, follow the use of the tetracyclines in that superinfections are most commonly associated with these drugs. Of this group, enterocolitis due to staphylococcus superinfections are the most severe and, of these, about 60 per cent occur following abdominal surgery. The mortality rate in such cases is about 30 per cent. As indicated, chloramphenicol has been implicated as a cause of certain hematologic disorders. During the past year, reports appeared of a new syndrome ("gray sickness") in premature and other newborn infants who received chloramphenicol.[4,5] This condition is characterized by abdominal distention, progressive pallid cyanosis, vasomotor collapse, and irregular respiration, and may prove fatal if the drug is continued in large doses after the symptoms first appear. The cause is not clear but, as in the kernicterus associated with sulfisoxazole, it may be due to differences in the manner in which the neonatal infant handles certain drugs.[6] Novobiocin produces skin reactions in about 10 per cent of all patients receiving the drug for more than a week. Cases of leukopenia and agranulocytosis have also been attributed to this antibiotic. In addition, the administration of novobiocin has occasionally been associated with yellow discoloration of the sclerae, elevation of the icterus index, or increased values for the indirect diazo reaction for bilirubin. Although it has been assumed that this was due to a yellow metabolite of novobiocin, recent studies suggest that the drug may produce hepatic dysfunction. Reports concerning the ototoxicity of kanamycin indicate that the deafness progresses after the administration of the drug is stopped with practically complete loss of hearing. Thus, particular caution should be observed in using the drug in individuals who already have a perceptive hearing loss or impaired renal function. Bacitracin, polymyxin, and neomycin all produce renal damage if given in sufficient doses and over sufficiently long periods. In addition, polymyxin produces paresthesias and some vestibular dysfunc-

tion quite regularly when used in moderate doses. Neomycin causes neurotoxicity similar to that occurring with dihydrostreptomycin, but more regularly, of greater severity, and after much smaller doses. Peripheral polyneuropathy has been by far the most significant toxic reaction occurring during the administration of isoniazid. As indicated, one of the main disadvantages of sulfonamide prophylaxis has been that of toxicity. However, with the introduction of the sulfapyrimidines (sulfadiazine, sulfamerazine, and sulfamethazine) such untoward effects as nausea and vomiting, blood dyscrasias, and sensitization reactions have been markedly reduced. Likewise, with the advent of "sulfonamide mixtures," the "more soluble sulfonamides" (sulfisoxazole, sulfadimetine, and sulfacetamide) and the new "low-dose long-acting sulfonamides" (sulfamethoxypridazine, sulfadimethoxine, and sulfaphenazole) reliable protection of the kidneys has been achieved. However, these improvements in sulfonamide therapy should not create a false sense of security on the part of the physician, in that these compounds remain potentially dangerous agents. The "low-dose long-acting sulfonamides" may offer new and easier prophylactic schedules for a sulfonamide drug, however, their behavior in man is such that increasing plasma concentrations may reach dangerous levels in patients with renal damage. Also, reports continue to appear regarding the frequency of skin reactions following sulfamethoxypyridazine. Many of these include cases of erythema multiforme showing the Stevens-Johnson syndrome.[7] Although the relative toxicity of sulfamethoxypyridazine cannot be fully established at this time, it would appear that the incidence of untoward reactions with this drug is probably greater than with sulfadiazine. The "non-absorbable sulfonamides" (phthalylsulfathiazole, succinylsulfathiazole) which have local action in the gastrointestinal tract are probably the least toxic of the sulfonamides. On the basis of current information, the nitrofurans appear to be drugs of low toxicity; gastrointestinal symptoms and sensitivity reactions involving the skin constitute the chief untoward reactions to this group of drugs.

SUPERINFECTIONS

Another aspect of prophylaxis with the antimicrobial agents is their effect on the bacterial flora of certain tissues and organs.[8] Normally, the body harbors many organisms which in small numbers are not pathogenic, relatively avirulent and cause no symptoms. When the normal ecology or microbiological balance is disturbed by the antimicrobials such organisms may increase in numbers and invasiveness and give rise to infections. Thus, antimicrobial prophylaxis may prevent a specific infection but at the same time may be responsible for the development of superinfections. Not infrequently, the superinfecting organism is relatively insusceptible to the available antimicrobics and the superinfection often presents a much more serious problem than the disease against which prophylaxis was directed. Penicillin may suppress or eliminate Gram-positive bacteria and directly or indirectly stimulate the multiplication of Gram-negative bacilli. On the other hand, streptomycin may suppress the Gram-negative bacilli and stimulate the growth of Gram-positive cocci. The combined use of pencillin and streptomycin may promote the multiplication of yeast and mould-like fungi from the normal flora in the intestinal tract to such a degree that fungus diseases may spread through the entire organism. Unfortunately, pencillin combined with streptomycin is often used for the prophylaxis of nearly all infections, which it rarely prevents; more often contributing to the occurrence and increased severity of antibiotic-resistant infection.[9] Other antibiotics, especially the tetracyclines, are suspected of directly stimulating growth and virulence of Candida albicans, with the ultimate production of Candidiasis. It is known that some coliform bacteria produce substances which suppress growth of other bacteria, for example salmonellae, which consequently may exert a protective role for the host against this group of pathogens. If perchance a patient has salmonellae lurking in the bowel and receives antimicrobial prophylaxis which is ineffective against salmonellae but is effective against the antagonizing organisms, it is conceivable that the intestinal flora may be so altered as to allow the salmonellae to become activated, grow luxuriantly and produce a serious infection.[10] Recent attention has been called to the parallel between the steadily increasing incidence of certain viral diseases, such as hepatitis and mononucleosis, and the increase in antibiotic consumption. Although this could be a coincidence, the antibiotics do induce unfamiliar syndromes by eliminating normal bacterial flora and something similar may be happening in certain sporadic viral diseases.

EFFECT UPON IMMUNITY

It may be speculated that the prompt antibactericidal action of the antimicrobial agents and the resulting inhibition of infectious processes may lead

to a reduction of antibody formation and thus reduce the resistance of the patient to reinfection by the same organism. This possibility seems to be supported by both laboratory and clinical studies.[11] It has been demonstrated in experimental animals that early antibiotic treatment in pneumococcic infections and tularemia could reduce immunity. Also, it was found that feeding mice and rats a diet containing certain antibiotics for a prolonged period of time interferes with antibody formation against strains of Salmonella enteriditis, whereas feeding of the same diets for a short period had the opposite effect. In man, recurrences are common in infections caused by Salmonella typhosa treated with chloramphenicol. For this reason, intermittent rather than continuous therapy has been suggested. A study of the immunologic response to antibiotics with scrub typhus indicated that under certain circumstances specific therapy may delay or diminish antibody production by interfering with development of the usual quantity of antigen. In the treatment of Group A hemolytic streptococci pharyngitis with penicillin, a second infection with the same type of streptococci as found in the original infection frequently occurs within two months after what appears to be a clinical and bacteriologic cure. Likewise, despite a good primary effect in scarlatina treated with penicillin, many bacterial complications caused by the original organisms occur in the weeks after cessation of treatment. The incidence of second attacks of scarlatina has been reported to be more than twice as great as that before penicillin was introduced and the likelihood of a second attack was increased when penicillin was started before the third day of the disease. Although immunity will be reduced if treatment is started early, it is still desirable to do so because one cannot take the responsibility for the complications that may arise and, fortunately, most of the second attacks are mild and not difficult to treat. Thus far, the possible effect upon immunity from isoniazid prophylaxis against tuberculosis is not fully understood.

MASKING EFFECTS

The antimicrobial agents may so modify an infectious disease that a clinical as well as a bacteriologic diagnosis is often difficult or even impossible to establish. For example, penicillin in the control of streptococcal infections may so suppress the clinical features of the acute rheumatic state that most or all of the characteristic signs and symptoms are absent; and the signs and symptoms of acute appendicitis may be so obscured by antimicrobial prophylaxis that no specific diagnosis can be made.

ANTIMICROBIAL PROPHYLAXIS IN SPECIFIC CONDITIONS

Included are some of the conditions in which the antimicrobial agents have been frequently employed prophylactically. For the most part, the value of these drugs as preventive measures has been predicated on theoretic considerations or on unproved clinical impressions, rather than being based on adequate and controlled studies. Throughout, great evidence in favor of this practice is expressed in such statements as: More patients are now being saved; there are fewer complications due to infection; and, the hospital stay is shorter. But, certain questions arise—if the antimicrobial agents have played a role in these advances, is it their effectiveness as prophylactic measures, or the result of their usefulness in combating established infection, or both? Likewise, what role has been played by improvements in general medical and surgical care of patients?

Group A hemolytic streptococcic infections—Advances of utmost importance have been made in the prevention of rheumatic fever, including continuous antimicrobial prophylaxis designed to prevent the inciting Group A hemolytic streptococcic infections and intensive early specific therapy of any streptococcic infection which may occur.[12] For the prevention of streptococcic infection, penicillin has proved the most effective agent; other antimicrobials—sulfonamides, tetracyclines, and erythromycin—have been used with varying degrees of success. It has been shown that in closed groups, the administration of penicillin to all individuals exposed to Group A hemolytic streptococci may abort an epidemic of streptococcal disease and markedly reduce the carrier rate. The fact that a patient who has been previously attacked by rheumatic fever may run as high as a 50 per cent (as compared to 3 per cent in normal individuals) chance of developing a recurrence of the disease, and since many streptococcal infections are so mild as to be considered inconsequential and thus not treated at all, it is now generally agreed that continuous prophylaxis with penicillin, or other suitable agents, should be given to such patients. Although this type of prophylaxis has been solidly endorsed by experience, recent data suggest that treatment with penicillin only at the time of respiratory infection is as effective in preventing recurrences of rheumatic carditis as continuous penicillin pro-

phylaxis.[13] There are, also, some practical disadvantages to continuous chemoprophylaxis. The most serious is the fact that subclinical streptococcal infection may occur and go unrecognized and produce carditis in spite of prophylactic measures. Others include the increasing incidence of penicillin sensitivity and the discomfort produced by intramuscular injection of long-acting penicillin; the failure of many patients to adhere to prescribed dose schedules with oral agents, and the cost of prophylaxis.

Many studies have shown that prompt and adequate treatment of Group A hemolytic streptococcal infections of the throat may diminish the attack rate of rheumatic fever. For such purposes penicillin represents the drug of choice, although erythromycin or tetracycline are also effective agents. The sulfonamides should not be employed in the treatment of streptococcic infections. The use of these agents in the treatment of streptococcal infections for prophylaxis of rheumatic fever, however, is far from the ideal solution of the problem. Because the preceding streptococcic infection may not be apparent in at least 35 per cent of patients in whom rheumatic fever develops, it is obvious that this approach will prevent at best little more than one-half of the total cases. In an effort to minimize this factor, controlled epidemiological studies have been made, especially in closed groups. Such control has generally been accomplished by regular and frequent cultures of an entire population or of all persons with symptoms of respiratory illness, and administration of penicillin either continuously to the entire population or intensively to patients with streptococcal infections and the asymptomatic carriers. This type of control was applied successfully to several military installations as well as to a community in which streptococcal disease and its sequellae had been a major public health problem. In this latter study,[14] all school children, the group most vulnerable to rheumatic fever, with symptoms of respiratory infection were inspected daily; a nasopharyngeal culture was made from every child with signs of streptococcal infection, and any child found infected with Group A hemolytic streptococci was excluded from school until penicillin had been started, or, if such therapy was refused, until a negative culture was obtained. More recently, in a survey[15] of streptococcal infection in three Philadelphia schools, it was found that during a school year as many as one-half of the children may have throat or nose swabs positive for Group A hemolytic streptococci, even though the infection rate remains quite low. It was found, moreover, that this state of affairs was not very much improved by intensive penicillin treatment of those harboring the organisms. These workers concluded that mass culture taking of school children and penicillin treatment of those found harboring streptococci in their throats was of questionable value.

Meningococcal Infections—During outbreaks of meningococcal infections, sulfadiazine or penicillin represent effective prophylactic agents.

Bacillary Dysentery—Sulfadiazine has proved an effective prophylactic agent in the control of institutional outbreaks of bacillary dysentery.

Venereal Diseases—The oral administration of 250,000 units of penicillin within three hours after venereal contact will prevent the development of gonorrhea in practically all cases. Such prophylaxis against gonorrhea is however not sufficient to prevent or to abort a hypothetical incubation syphilitic infection in that 2.4 million units of long-acting penicillin intramuscularly is required for the latter. Since these two venereal diseases are often fellow-travelers, the rising rate of syphilis within recent years may be partly due to a general overconfidence in the effectiveness of oral penicillin in preventing both of these venereal diseases. Infection with gonococci in ophthalmia neonatorum can also be prevented by the proper use of penicillin. Likewise, penicillin administered to an expectant mother with gonorrhea and/or syphilis may prevent gonococcal complications in the child, as well as congenital syphilis.

Heart Disease—In the presence of bacteremia, one of the more common sites for pathogenic organisms to localize and produce metastatic infection is the endocardium of the valve leaflets. Such involvement of the endocardium by infecting organisms is facilitated by previous valvular disease or by a congenital anomaly. It is known that transient bacteremia occurs in a goodly number of persons having certain operative procedures—particularly dental extractions and tonsillectomies. Likewise, bacteria may occur in the blood following bowel resections, operations on the prostate, and during parturition. This fact and the observation that approximately one-third of cases of subacute bacterial endocarditis follow some surgical insult has emphasized the importance of antimicrobial prophylaxis in all patients with acquired or congenital heart disease undergoing one of the above operative procedures. For this purpose, penicillin, or penicillin combined with streptomycin, represents the treatment of choice and, although bac-

teremia may not always be avoided, antimicrobial prophylaxis may prevent infection of the cardiac valves.

The fact that patients in congestive heart failure have a tendency to contract pulmonary infections has led to the use of the antimicrobial agents in such cases. However, efforts to prevent these infections with antimicrobial prophylaxis have for the most part proved ineffective. In ambulatory patients at home with chronic congestive failure, a study showed that in many instances the administration of chlortetracycline would diminish the occurrence of pulmonary infection. On the other hand, hospitalized patients with acute heart failure receiving chloramphenicol were not benefited.[16] In both instances there was definite evidence of the development of drug-resistant organisms. Here again it would seem best to take special care to discover pulmonary infections early and, once they are detected, to treat them vigorously with appropriate antimicrobials rather than employ those agents routinely in patients with congestive heart failure.

CHRONIC RESPIRATORY DISEASE

Patients with chronic respiratory disease, chronic bronchitis, bronchial asthma, pulmonary emphysema, and bronchiectasis are highly susceptible to superimposed bacterial infections. Since intercurrent respiratory infection constitutes the principal hazard to these people, the most promising management of such cases would be the actual prevention of these episodes. However, studies designed to prevent acute infections of the lower respiratory tract with the antimicrobial drugs in these patients have had contradictory results. Favorable results with long-term administration of one of the tetracyclines have been obtained in patients suffering with chronic bronchitis and bronchiectasis.[17] In most instances the drug was well tolerated but the antibiotic did not prevent the development of drug-resistant organisms. In fact, there is an increasing body of evidence that such use of antibiotics may actually encourage implantation of organisms, ordinarily uncommon in the respiratory tract except as transients or as saprophytes. Most workers, therefore, prefer to reserve these agents for the treatment of the acute exacerbations. If continuous therapy seems indicated in selected cases of chronic respiratory disease, it would seem advisable to limit its use to the six winter months only. Although one of the tetracyclines is considered by many to be the drug of choice for such therapy, others recommend the sulfonamides.

URINARY TRACT INFECTIONS

The role of antimicrobial agents in preventing infections of the urinary tract is difficult to define in that very little fundamental information concerning the factors other than obstruction that predispose to infection is known.[18] It is agreed, however, that certain clinical states—diabetes mellitus and pregnancy, as well as obstructive uropathies—are associated with a relatively high incidence of urinary tract infection. Likewise, the role of catheterization or instrumentation in the pathogenesis of urinary infection is now widely recognized. At this time there is no way of telling whether the benefits to be derived from the prophylactic use of antimicrobial agents will be sufficiently great to warrant administering these drugs in diabetes or in pregnancy as routine measures. However, antimicrobial prophylaxis administered in the presence of obstruction in the urinary tract or in relation to catheterization or instrumentation probably does not alter the incidence of subsequent urinary tract infections. The bacterial flora of the urinary tract rapidly become resistant to the drug used prophylactically which seems to be due to the introduction of resistant organisms, which replace the ones that have been inhibited by the drugs in use. The net effect of antimicrobial prophylaxis, therefore, is to convert a drug-sensitive flora to a resistant one.

TUBERCULOSIS

Chemoprophylaxis of tuberculosis with isoniazid has been successful in preventing serious extra-pulmonary complications in patients with pulmonary tuberculosis, or in persons with no evidence of tuberculosis except a positive tubercular skin reaction.[19] In a communicable disease like tuberculosis all effective therapeutic measures are preventive, but this is surely an unnecessary extension of the usual meaning of prophylaxis. As yet there is little experimental or clinical evidence relevant to the value of antimicrobial agents in the true prophylaxis of tuberculosis. Preliminary observations in laboratory animals indicate that isoniazid administered at the time of exposure to tubercle bacilli completely prevents the disease.

Likewise, 98 newborn infants (Durban, South Africa) who were allowed to remain with and suckle their actively infected tuberculous mothers received isoniazid and none of these infants developed tuberculosis.[20] A child so protected does not develop an immunity, however, and, as soon as the drug is

stopped, it will, if exposed, become infected. Obviously, in practice, the use of antituberculous drugs as true prophylactic agents would be limited to small selected groups—those accidentally infected in laboratories, uninfected hospital personnel exposed to infectious patients for short periods, and the like.

VIRAL INFECTIONS

The majority of infectious diseases encountered in general practice are of viral origin and are not amenable to treatment with the antimicrobial agents. Nevertheless, one of the most common prophylactic uses of these drugs is an attempt to prevent secondary bacterial infections following these viral infections. Included in this group are the common cold, pneumonitis, influenza, measles, mumps, chickenpox, pertussis, mononucleosis and poliomyelitis. In general, such attempts to prevent bacterial infection have not proved very successful.[21] Certain organisms may be warded off depending on the antimicrobial agent employed in prophylaxis but invasion by all organisms cannot be prevented. Furthermore, the bacterial infections which occur in patients receiving these drugs routinely have generally proved to be much more difficult to manage and overcome than those which occur in the untreated cases because the former are almost invariably due to bacteria that are resistant to the agents used in prophylaxis. Although routine antimicrobial prophylaxis is not recommended in viral diseases, its use may have more justification in certain conditions in which the risk of superimposed bacterial disease is great; for example, measles in children under three years of age and hospital patients with severe bouts of influenza.

UNCONSCIOUS PATIENTS

It has been customary in many hospitals to "cover" unconscious patients with antimicrobial prophylaxis. In spite of the frequency with which this is done, there is no proof of its effectiveness in preventing infection. To the contrary, a study[22] which was carried out at the Johns Hopkins Hospital showed that unconscious patients, without pre-existing infection, who were routinely treated with antimicrobials not only were not benefited from this form of treatment but were rendered more susceptible to pneumonitis, cutaneous infection, and bacteremia. In addition, there was an unfavorable change in the flora of the respiratory and urinary tracts, exposing these patients to the risk of invasion by organisms that would be more difficult to eliminate than those present initially. From these data the authors concluded that prophylactic antimicrobial therapy is of no benefit and is distinctly hazardous in unconscious patients.

SURGICAL INFECTIONS

An important and basic aim of modern surgical procedure is prevention of infection in a planned wound. The skin, by virtue of its location, is not only the tissue most vulnerable to infection but also acts as a barrier between us and the outside world. As a result of the evolutionary process, it has developed amazing reparative powers, as well as the capacity to resist bacterial infection. In order for the surgeon to perform his specialty, he must, of necessity, interfere with the continuity of the skin barrier and in so doing, he creates simultaneously conditions conducive to microbial invasion of the underlying tissue. Fortunately, if the accepted principles of sterile technique are followed the incidence of wound infection in a clean field is less than 2 per cent (without the use of antimicrobial agents). Under the same conditions, however, operations that expose the tissues to contamination from certain areas of the body—respiratory tract, colon, abnormal urinary tract, etc.—the incidence of postoperative infection is greater (25 per cent or more) than in clean wounds because of the greater numbers and varieties of bacteria in the operative field and the fact that bacteria on mucous membrane surfaces of the body cannot be destroyed or reduced in numbers as readily as they can on the skin.[23] The routine administration of antimicrobial agents for prophylactic purposes in clean cases, which represent a substantial percentage of operative procedures, has not only failed to reduce the incidence of infection but those that do occur are mainly to drug-resistant organisms;[24,25] a possible exception being operations necessitating exposure to contamination of a large body surface for prolonged periods of time—cardiac, brain surgery, etc.—in which topical bactericidal agents are applied at time of closure.

For the potentially contaminated case, if the organisms indigenous to the operative area could be eliminated prior to operation, the incidence of postoperative infection should theoretically closely approach that of clean surgery. In certain contaminated areas the number of bacteria may be markedly reduced with the use of antimicrobial agents but complete sterilization has rarely if ever been accomplished. When one considers the subtleties of bacterial invasion, this attempt to diminish or eliminate susceptible organisms is open to question. One of

the most frequent applications of antimicrobial prophylaxis in contaminated fields is the preoperative "sterilization" of the colon for patients undergoing elective surgery of the colon.[26] No doubt this measure may markedly decrease the number of susceptible microorganisms but it should not be expected that any amount of antibiotic therapy would eliminate all complications. In fact, the effect of the antibiotics against the drug-susceptible organisms may afford better opportunities for growth of the drug-resistant strains. In a series of patients who had various types of intestinal operations, the incidence of postoperative complications differed little between the groups receiving parenteral penicillin combined with streptomycin and those after oral administration of members of the tetracycline group,[27] (for preoperative preparation, neomycin constitutes the best single antibiotic but for greater efficacy should be combined with another agent, preferably a non-absorbable sulfonamide). In a well controlled study,[24] alternate "dirty cases" were routinely given penicillin combined with streptomycin, the antibiotics most often used for that purpose, postoperatively. Not only did antimicrobial prophylaxis fail to reduce the incidence of postoperative infections but those that did occur were due mainly to drug-resistant bacteria. This study was discontinued, incidentally, largely because the staphylococcus which was frequently encountered was resistant to the antibiotics employed. Another study,[28] dealing with the prophylactic use of chloramphenicol in patients undergoing transurethral resections of the prostate gland showed no significant effect from the antibiotic on the immediate postoperative complications, pyrexia, bacteremia, urine cultures, drainage period, hospital stay, or on the mortality. Likewise, it has been shown[29] that in patients tracheatomized to relieve respiratory distress resulting from bulbospinal poliomyelitis, the success in prevention of an amelioration of pulmonary infection by use of various antimicrobial agents was limited. It was found that regardless of the number and type of drugs used, the prevention of implantation of one or more organisms into a sterile trachea was only slightly more effective than no treatment at all. The authors concluded that in spite of the possibility of preventing a few drug-susceptible organisms, the unfavorable alteration of flora that occurred when prophylaxis was attempted probably outweighs the good that may be accomplished. These, and the observations of others, are highly suggestive that routine antimicrobial prophylaxis in potentially contaminated cases is of little or no value in reducing the incidence of postoperative complications and the infections which occur are in the great majority of instances caused by either staphylococci or one or more of the enteric flora.[30] Since the flora in different areas of the body are quite varied and surgical infections are often due to stubborn organisms, a beforehand knowledge of the bacteriology and culture sensitivity of the body area involved should be helpful in elective contaminated cases. Should the organisms prove to be antibiotic-resistant, it would be unlikely that antimicrobial prophylaxis would be effective; if drug-susceptible bacteria are found, it would seem best in view of the above reports to withhold the drugs until there is evidence of an actual infectious process. This reasoning may apply to contaminated areas in the body where antimicrobial agents are used in attempts to "sterilize" the mucous membrane.

OBSTETRICAL INFECTIONS

Patients with prolonged rupture of the membranes with or without labor are susceptible to intrapartum and postpartum infections. Likewise, infants born after premature rupture of the membranes and/or difficult labor are susceptible to perinatal infections. In an effort to prevent such infections, the antimicrobial agents have received widespread prophylactic use in such cases. From available studies there is no evidence to support the practice of administering antibiotics during the interval between rupture of the membranes and the onset of labor ("latent period").[31] Moreover, for patients in labor, the evidence is not convincing, both as to the prevention of infection in the mother and in the infant. Since the vaginal flora contains a variety of bacteria and genital tract infections are often due to drug-resistant organisms, it seems unlikely that routine antimicrobial prophylaxis in such cases would be of sufficient value to warrant the risks involved.

PERINATAL INFECTIONS

Prophylactic antimicrobial therapy has also received widespread use in infants born after premature rupture of membranes because of assumed exposure to infection. A controlled study[3] showed that the mortality rate in a series of premature babies delivered after rupture of the membranes for 24 hours or longer was 18 per cent in the group receiving penicillin plus streptomycin, as compared to 19 per cent in the untreated group. In the groups receiving chloramphenicol and chloramphenicol plus a com-

bination of penicillin and streptomycin, the mortality rates were 60 per cent and 68 per cent, respectively. As a result of this study, the use of prophylactic antibiotics was discontinued in the nursery. Comment has already been made concerning the toxicity of antimicrobial agents, particularly sulfisoxazole and chloramphenicol, in premature infants.

STEROID THERAPY

There is substantial clinical evidence that resistance to infection is depressed while adrenocorticosteroids are being administered. In particular, staphylococcal infections, tuberculosis, and infections of the urinary tract have appeared in patients who were receiving steroids. It has been demonstrated, however, that steroid-treated animals can overcome reduced resistance if the penicillin dose is increased. Bacteriostatic drugs, such as chloramphenicol or the tetracyclines, are less effective in overcoming this adverse effect of adrenocorticosteroids than are bactericidal drugs, such as penicillin. In addition, the steroids have been shown to augment the action of vasopressor agents such as epinephrine and nonepinephrine. In view of these factors, the antimicrobial agents may overcome some of the disadvantageous effects of steroids. For example, in patients following accidental trauma with circulatory collapse, the antibiotics are directed against both the threat of bacterial invasion and the untoward effect of steroid therapy. Such therapy may prove helpful if the infection is caused by drug-sensitive bacteria but the steroids may produce a more pronounced effect if the offending organisms, particularly staphylococci and Gram-negative bacilli, are resistant to antibiotic therapy.[32] This same reasoning may be applied to the practice of administering antibiotics prophylactically in patients receiving long-term steroid therapy.[33]

SUMMARY AND CONCLUSIONS

1. A consequence of the successful treatment of many infectious diseases with the antimicrobial agents has been an attempt to prevent infection by the administration of these drugs prophylactically. The magnitude of this practice is reflected by the fact that in the majority of instances the antimicrobial agents are administered for purposes other than for the treatment of established infections caused by drug-susceptible organisms.
2. An attempt has been made to define the role of the antimicrobial agents as prophylactic measures. In all this, there is perhaps nothing surprisingly new. It is clear that more often than not, the belief that these drugs will prevent bacterial infections is unjustified and their use in this fashion is hazardous.
3. It is readily apparent that the only types of infection that the antimicrobial agents have prevented are those in which prophylaxis has been directed at a single highly susceptible organism, such as the Group A hemolytic streptococcus, the meningococcus, the gonococcus, and some species of Shigella which, when they cause infection are usually easily controlled with the same drug employed therapeutically. Even in those instances where proper indications for antimicrobial prophylaxis exist, this treatment is often powerless to prevent bacterial infection.
4. In most instances, organisms isolated from patients treated prophylactically with the antimicrobial agents are more resistant to these drugs than are organisms cultured from untreated patients.
5. It is probable that the increase of infections caused by stubborn organisms during recent years is largely due to the widespread and frequent use of the antimicrobial agents for prophylactic purposes.
6. The rising incidence of toxic reactions caused by the antimicrobial agents is also probably due to a great extent to antimicrobial prophylaxis. In many instances, drug toxicity represents more of a threat to the patient than the potential infection for which antimicrobial prophylaxis is employed.
7. Many physicians, in hopes of preventing mixed infection, employ multiple antimicrobial agents. For the most part, this practice has not only proved unsuccessful as a prophylactic measure but more often contributes to the occurrence and increased severity of the untoward effects of the antimicrobial agents. The most popular combination and the greatest offender in this regard being a mixture of penicillin and streptomycin.
8. The practice of administering antimicrobial agents to prevent infection may so modify an infectious process that a clinical as well as a bacteriological diagnosis are often difficult, or even impossible, to establish. Likewise, these agents may militate against the establishment of firm immunity by killing off responsible organ-

isms before adequate antibody stimulation can be developed.

9. It may be assumed that the advances in control of infectious disease during the past 25 years are largely due to the effectiveness of the antimicrobial agents in the treatment of established infections, caused by drug-susceptible organisms, and to improvements in general medical and surgical care of patients rather than to the prevention of infections by antimicrobial prophylaxis.
10. From the above, it is clear that physicians should think twice about using antimicrobial agents at all in most cases in which they are now given to prevent infections.

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Heart Attacks

Heart attacks are as common among women as men beyond the age of 50, according to an autopsy study at three large medical centers in widely separated geographical areas.

A total of 13,485 autopsies performed at Barnes Hospital, St. Louis, Massachusetts General Hospital, Boston, and Radcliffe Infirmary, Oxford, England, were analyzed by Drs. Fairfield Goodale, Hanover, N.H., and Wilbur A. Thomas and Robert M. O'Neal, both of St. Louis.

The findings, reported in the June Archives of Pathology, published by the American Medical Association, showed the incidence of heart attacks "is equal in men and women past 50 years of age."

Of the 13,485 autopsies, heart attacks were found in 1,372. Only 154 of the 1,372 occurred in persons under 50. Among those under 50, heart attacks were more prevalent in men than women by a two-to-one ratio.

The study confirmed a similar report made in 1956 which was based on autopsies performed only at Barnes Hospital.

"Because of the undoubted selection of patients that occurs in any single medical center, the study was extended to two other institutions, confirming the results of the initial study."

In the latest study, the incidence of heart attacks found at autopsy at Barnes was compared with the incidence of diagnosed heart attacks among patients discharged alive from the hospital.

In the group of discharged patients, the over-all incidence of heart attacks among men was three times that among women. In the under-50 group, the ratio of men to women was 12 to 1.

This "remarkable preponderance" of men discharged with diagnosed heart attacks, six times as great a ratio as that found in autopsied patients of the same age, suggests that the diagnosis is less obvious in young women than in men, perhaps solely because the possibility of the diagnosis is not often entertained in young women.

Autopsies provide objective, accurate information regarding the cause of death, whereas most diagnoses are at best educated guesses.

However, "great caution is necessary in using data derived from autopsies for drawing conclusions regarding the general population because immeasurable factors of selection are present."

Roentgen Diagnosis of Certain Small Bowel Abnormalities

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Disease of the small bowel is not the most frequent cause of abdominal symptoms. It does exist, however, and must be kept in mind if it is to be properly diagnosed and successfully treated.

THIS DISCUSSION is limited primarily to abnormalities interfering with normal motor function of the small intestine. The bowel is approximately twenty-two feet long and is probably one of the most neglected segments of our anatomy. Fortunately it is the infrequent site of serious disease though it is not entirely immune and perhaps the relative infrequency of serious disorders in this area has led to the degree of disregard that this segment of our gastro-intestinal tract enjoys.

In general the symptomatology is of long duration and there is usually intermittent abdominal pain, cramping in type, nausea and vomiting. The pain is frequently referred to the left upper quadrant and periumbilical regions. The symptoms may or may not be related to meals and usually do not respond to the popular forms of therapy aimed at peptic disorders. The persistence of symptoms in the face of the therapeutic battery almost uniformly leads to the erroneous conclusion that the patients have a strong overlay, or are psychoneurotic and, more frequently, are just plain "crocks". Symptoms are usually the result of intermittent obstruction produced by congenital bands, adhesions, intermittent intussusception or intermittent herniation.

In the diagnosis of small bowel disorders the most important step is merely to think of this area as a possible source of the patient's complaint and consider a somewhat bizzare symptomatology as possibly being small bowel in origin. As for the roentgen aspect of the diagnosis, here also the first consideration is merely to think in terms of small bowel and maintain a high index of suspicion and be on guard for unusual gas patterns in the abdomen. Gas in the small intestine is not an abnormal finding; however gas-filled bowel which persists on repeated studies of the abdomen and localizes to one area or segment usually indicates impaired function, probably incident to low-grade obstruction. Usually the degree of distention is quite minimal and may frequently be confined to one small segment of bowel.

The second phase of the roentgen study is that of the small bowel examination by barium and here, as with any other diagnostic procedure, one cannot hope to recognize the abnormal situation until he has familiarized himself, insofar as possible, with the normal and with the normal variations. A routine one- or two-hour film on every upper gastro-intestinal study affords an excellent opportunity to observe the normal.

The first specific entity which I wish to present is that of duodenal ileus or chronic duodenal dilatation and stasis. All degrees of delay in emptying of the duodenal loop are encountered, from mild, transient stasis of functional or postural origin to almost complete obstruction due to organic disease. Some of the causes capable of producing this type of abnormality are listed below:

I. Developmental or congenital
   - A. Chronic, intermittent, arteriomesenteric occlusion of the duodenum—better known as the "superior mesenteric artery syndrome". This comprises approximately 50 per cent of the cases.
   - B. Congenital peritoneal bands
   - C. Non or faulty rotation of the mid gut
   - D. Congenital cysts in the duodenojejunal region
   - E. Atresia of the duodenum
   - F. Annular pancreas

Presented at the Annual Meeting of The Medical Society of Virginia, Roanoke, October 1959.

G. Extreme visceroptosis, especially of the duodenal loop

II. Extra duodenal disease compressing the duodenal region

A. Adhesions arising from inflammatory disorders of the gallbladder, pancreas, stomach or colon

B. Tumors in the retroperitoneal space

C. Aortic aneurysms

III. Intramural disease such as duodenal ulcers, jejunal ulcers, tumors, etc.

Symptomatology: The average duration of symptoms is usually measured in years and in one author's series the average was eleven and one-half years.

Pain: Pain is the major complaint. It is usually epigastric or near the umbilicus and may be referred to the right upper quadrant and back. It may be very acute, simulating intestinal obstruction, but in most instances the discomfort is described as a mild sense of fullness or bloating. It is usually postprandial, one to two hours. Symptoms may simulate those of duodenal ulcer and this is usually the provisional diagnosis.

Vomiting: Vomiting is also an important symptom in the more severe cases. It may be painless, projectile vomiting of bile and gastric juice, especially if there is an open or incompetent pylorus and a dilated stomach. A second variety of vomiting occurs at the termination of or relief from an attack of pain. The pain is caused by a gradual distention of the duodenum against the obstructing source and the competent pylorus. A third type of cyclic vomiting associated with headache, malaise, vague nausea which may simulate migraine attacks has been reported. Headache has been considered as one of the major complaints in duodenal ileus. The exact mechanism is not apparent though it is suggested that it is similar to abdominal migraine. Signs and symptoms of neuromuscular colonic irritability are often noted so that alternating attacks of diarrhea and constipation may occur. Bockus points out that one of the most important features of high duodenal occlusion is an increasing evidence of emaciation and nutritional deficiency. A marked weight loss may occur in a very short time and the degree of emaciation may be such that a provisional diagnosis of malignancy is made. Anxiety and emotional states are not uncommon.

The diagnosis is primarily radiological as there are no direct physical findings associated with this abnormality. The roentgen findings consist of a dilated duodenal segment extending from the bulb to the ligament of Treitz. The valvulae conniventes are separated and frequently quite flattened and atrophic in appearance, particularly in the extreme cases. Fluoroscopically there is usually evidence of a vigorous to-and-fro peristaltic activity in the involved portion of the duodenum and a plain film of the abdomen will usually demonstrate the presence of gas residue within the duodenal region.

CASE I. A thirty-one year old woman was admitted to the hospital with a complaint of abdominal pain for several years' duration. In the past three or four years she had noted intermittent episodes of post-prandial pain characterized by epigastric burning and some shifting of the pain to the left lower abdomen. The pain was relieved by expulsion of flatus and in more recent weeks she had developed an intermittent diarrhea.

Figure 1 demonstrates a greatly dilated descending segment of the duodenum with obstruction in the third portion. The obstructing force was the superior mesenteric artery associated with numerous adhesions. To be noted is the normal pylorus and the normal stomach.

Fig. 1

CASE II. A middle-aged man had been in good health until about two weeks prior to admission when

he sustained a rather severe injury, sufficient to fracture several transverse processes of the lumbar spine. He was admitted with the complaint of persistent nausea and profuse vomiting, both of which had occurred following the accident.

Figure 2 demonstrates a greatly dilated duodenum

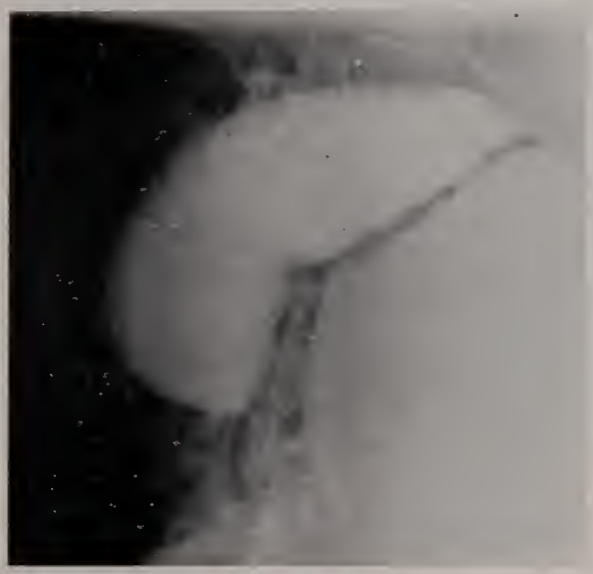

Fig. 2

to the third portion with obstruction in this region. There is noted also a greatly dilated stomach, indicating an incompetent pylorus with regurgitation of fluid into the stomach, which apparently accounts for the profuse vomiting. The obstructing force was that of old blood, adhesions, and soft tissue debris incident to the fractures.

CASE III. A young, well-developed male was in good health until a few weeks prior to admission when he developed a severe colicky pain in the right upper abdomen with radiation of the pain to the epigastrium. There was a marked degree of vomiting associated with the pain and the admitting diagnosis was acute biliary colic. Gallbladder studies on two examinations demonstrated a normal gallbladder without evidence of stones. A G. I. series revealed a moderate degree of duodenal ileus.

Figure 3 demonstrates the dilated segment with separation of the mucosal folds incident to the dilatation. The obstructing force here was a transduodenal band extending from the transverse colon to the liver and compressing the duodenum against the spine.

The next condition which I would like to present is that of the intra-abdominal hernia and the periduodenal hernia. The hernias may be quite small,

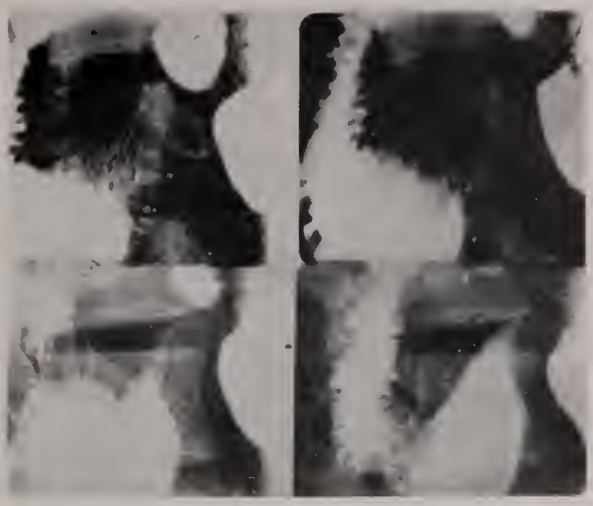

Fig. 3

containing only one loop of bowel, or may be very large, containing large segments of the small intestine. They are characteristically intermittent and reduce spontaneously and therefore may be present at one examination and not demonstrated at a repeated study. Symptomatology also is intermittent in its nature. The symptoms may occur at any age and are frequently of long duration. In one author's series the duration of symptoms varied from three weeks to forty years. There may be a long interval between attacks and in the interim the patients are symptom free. Pain is frequently referred to the back and especially in the renal area and is very commonly referred to the left upper quadrant and around the left costal margin.

The diagnosis should be suspected clinically, however there are no definite physical findings associated with the abnormality unless the hernia is large enough to produce an abdominal mass. Roentgen changes consist of persistence of gas-filled loops of bowel on repeated studies of the abdomen and there may be only one isolated loop in numerous segments, depending upon the size of the hernia at the time of the study. Barium studies, of course, are the most satisfactory method and here there is evidence of delayed transient time through the involved segments. Barium is diluted and there is precipitation and flocculation of the barium produced by the fluid residue. The bowel is frequently "trapped" into a small area and may have the configuration and appearance of being in a sac. Lateral erect films are also most helpful and will frequently demonstrate a posterior position of the involved segments.

CASE IV. This patient represents a combination of duodenal ileus and paraduodenal hernia and her

complaint at the time of examination was, "I have vomited every day since 1947 and everybody thinks I am a nut."

Figures 4a and 4b demonstrate two separate barium studies, the first showing partial obstruction of the duodenum in its third portion but with the duodenum and jejunum being in the normal position. There is, however, upward displacement of the stomach. On the second examination the obstruction has been relieved and the jejunum now lies at the right side of the abdomen. The patient had a right paraduodenal hernia.

Fig. 4A

Fig. 4B

Fig. 5

CASE V. A ten-year-old boy had intermittent epigastric pain and vomiting for six months prior to admission.

Figure 5 shows segments of small bowel confined to a sharply outlined segment of the abdomen with some compression of the involved segments, giving the appearance that the bowel lay in a sac. Surgical exploration revealed the presence of a large, marsupial-like sac arising from an anomalous membrane from the bladder. The lower abdomen was divided into two compartments and the loops of bowel were caught in a large pouch along the right side. The membrane was resected and the bowel freed.

CASE VI. The next case represents a classical intra-abdominal hernia. He was first seen in 1949 with the complaint of left upper abdominal pain. It had been intermittent in nature and associated with indigestion. Approximately three weeks before admission there was a recurrence of symptoms, though more severe, and there was left lower quadrant tenderness. The patient had complained of this for approximately thirty years. Numerous x-ray studies were carried out, all of which showed evidence of persistent gas-filled loops of bowel lying in the left side of the abdomen, as demonstrated in Figure 6. While the appearance changed from study to study, the area was never free of this finding and, as mentioned previously, the persistence of gas in an isolated segment of the abdomen is highly suggestive of internal hernia. At surgery there was a large hernia beneath the descending colon, extending medially to the middle colic artery and containing about one-half of the small intestine.

CASE VII. A young woman gave a history of

Fig. 6

having had abdominal pain associated with vomiting for many years. The symptoms had been intermittent and just prior to her last admission had become much more severe and the vomiting more profuse. Her symptoms dated back to 1946—approximately twelve years.

Figure 7a demonstrates a moderately dilated small bowel in the mid-abdominal region and a subsequent small bowel study, as seen in Figure 7b, reveals marked dilatation, principally in the jejunum. The obstruction was produced by kinking of the bowel around a partially calcified mesenteric lymph node in the right lower quadrant.

Tumors of the small bowel of the size and location capable of producing symptoms are rare and the early and moderate symptoms, which are often considered as functional in origin, are frequently overlooked. Small bowel tumors manifest themselves usually by bleeding or intermittent obstruction with bleeding being the most common presenting symptom. The onset may be acute and catastrophic or may be intermittent and persist over a long period of time with the patient being relatively free of symptoms between attacks. Tumors may originate from any of the basic tissues composing the small bowel. Only three per cent of all malignant tumors occur in the small intestine, the most common location being the second portion of the duodenum. The next most frequent site is in the distal ileum.

CASE VIII. The next case is a middle-aged woman who complained of intermittent pain in the left upper quadrant with the pain radiating around the costal margin and to the back. Her symptoms were considered functional in origin. Figure 8 demonstrates a small polyp in the duodenum, just proximal to the ligament of Treitz. This was a pedunculated lipoma and since its removal the patient has been free of symptoms and it is possible that symptoms were produced by intermittent intussusception.

Fig. 7A

Fig. 7B

Fig. 8

CASE IX. A thirty-eight year old woman had been in good health until four days prior to admission at which time she became weak and fainted. Shortly following this episode there was the onset of profuse rectal bleeding with passing of bright red blood. Figure 9 demonstrates a constant abnormality in the jejunum which subsequently was demonstrated to be an ulcerating leimyosarcoma.

CASE X. A fifty-nine year old man had been in good health until about two weeks prior to admission when he developed abdominal pain localized to the umbilical area. The pain was somewhat colicky in nature but was relieved by vomiting and to some degree by antacids. There was a history of tarry stools. A G. I. series and small bowel study were done.

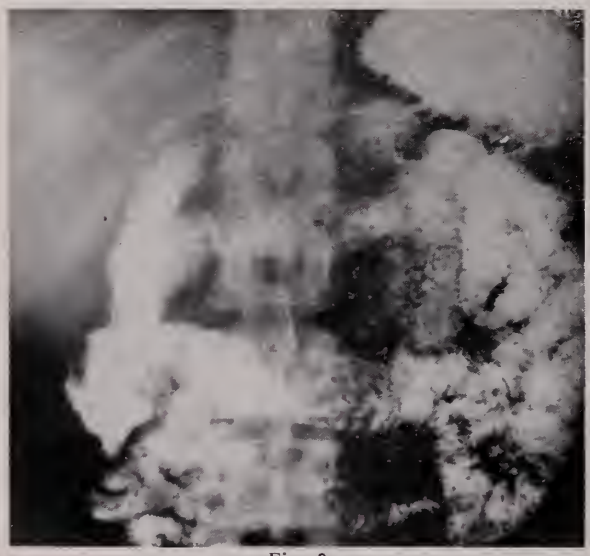

Fig. 9

Figure 10 demonstrates a greatly dilated small bowel with almost complete obstruction in the distal jejunum with the appearance of an annular constriction at the point of obstruction. The provisional diagnosis of neoplasm was made. At surgery an adenocarcinoma was found and there were widespread abdominal metastases with involvement of the liver.

Fig. 10

SUMMARY

Numerous affectations of the small bowel have been presented briefly. Symptoms are usually mild and intermittent though may occasionally be quite severe and catastrophic in character. The symptomatology may indeed be quite bizarre such that many patients are considered to be psychoneurotics when in reality there is organic basis for their complaints. A high index of suspicion, both from the clinician and from the radiologist, can be most helpful in arriving at the correct diagnosis.

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More Deadly Than Snake Bites

More Americans will die this year from insect stings than from snake bites, according to an article in the July Today's Health magazine.

"Each year, more Americans die from the stings of the little insects buzzing in our gardens and parks than from bites of all venomous reptiles combined."

Most medical authorities are convinced that severe reactions to insect stings are the result of an allergy."

No one knows exactly how many persons are allergic to the stings of insects, but in the opinion of one allergist "severe reactions to insect stings occur more commonly than is generally supposed."

"In fact, it is possible that unrecognized cases account for some of the sudden deaths attributed to heart failure and heat prostration in the insect season," Dr. Harry L. Mueller of Boston said.

The insects that cause most of the reactions are the honeybee and bumblebee and three kinds of wasps—yellow jacket, hornet, and Polistes—although about 25 other insects have been reported to produce allergic symptoms in man.

Because their nests are hidden and they are easily irritated, yellow jackets account for most of the insect stings. Honeybees and bumblebees are much less likely to sting.

A knowledge of the nature of bees and wasps can be of help in avoiding stings, the article said, making these points:

—If you see more than two yellow jackets or bumblebees disappear under leaves in a woods, it is likely that their nest is located there. Bees and wasps usually sting only when their nests are threatened or they are actually touched.

—If you are buzzed by a bee or wasp, never flail at it with your arms. Walk slowly away. Stinging insects are more apt to attack a fast-moving object because they are sensitive to air movements and sudden motion.

—Bees seem to be angered by dark shades, whereas white or khaki clothing does not bother them.

—To keep yellow jackets and bees from gathering at picnic tables, spray the area with a repellent chemical.

—Bees and wasps are attracted by hair oils and perfumes which contain floral odors.

—Finally, be sure that there are no nests of yellow jackets, bees, or other wasps in the immediate area of your house or yard. Killing a nest is a tricky business and a trained exterminator should be hired for the job.

The author of the article is Peter Farb.

Nodular Goiter

A Review

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The patient with nodular goiter requires careful consideration. This paper reviews the clinical approach to the disease, discusses diagnostic procedures for differentiating benign and malignant nodules and describes the treatment of benign nodular goiter.

WHAT DOES ONE DO with the patient with a nodular thyroid? This problem continues to challenge and perplex the physician. The major argument arises over whether or not thyroid cancer is present. Although we still have to rely upon histiologic study for a definitive diagnosis, newer laboratory procedures, including radioactive iodine studies, agglutination studies and an occasional needle biopsy combined with careful clinical analysis, do allow some selection as to the likelihood of cancer in a given situation. It is the purpose of this paper to review the clinical approach to nodular thyroid disease especially with an aim to the separation of benign from malignant lesions and to discuss the therapy of benign nodular goiter.

BASIC CONSIDERATIONS

There are first of all certain basic considerations. These include the anatomy of the thyroid, the etiology of nodules, the incidence of nodular goiter and thyroid cancer, and the significance of the number of nodules and the functional state of these nodules.

The thyroid is composed of glandular tissue embedded in a stroma of fibrous connective tissue and richly supplied with blood.[1] Any degree of thyroid enlargement, present for any length of time, whether it be in the form of a single nodular mass or diffuse enlargement, will be associated with some increase in fibrous connective tissue. This fibrous tissue cannot be expected to change markedly in size with any therapy short of surgery or irradiation. The changes in thyroid size will depend primarily on alterations in the glandular substance and, at times, the vascular space.[2] Thus, age and size are important factors in determining nodularity. Also, regenerating thyroid tissue is frequently nodular.

The etiology of nodular thyroid disease remains obscure. Known causes include the ingestion of goitrogen, iodine deficiency, hereditary enzymatic defects and inflammatory response or thyroiditis. Histiologic classification is complex and will not be dealt with here. It is important to point out that in experimental animals alternating stimulation and suppression of thyroid function will lead to the development of nodular goiter[3] and, similarly, fluctuations in thyroid stimulation are theorized to be etiologically significant in the production of nodular goiter in humans.[4]

A basic factor in the consideration of nodular thyroid disease, and one that is not stressed sufficiently is that the normal thyroid is palpable and thryoid tissue can be felt in over 90% of persons examined.[5] Thus palpation, with an appreciation of the consistency, size, and shape of the normal thyroid is of utmost diagnostic importance in the evaluation of thyroid disease.

The absolute incidence of nodular goiter is unknown but has been estimated by various authors to range from 2% to 10%.[6] Personal observations in a group of 225 males would agree with the latter figure.[5] Interestingly, in this group of 225 males the incidence of nodular thyroids increases in the older age groups. Autopsy studies also show a very high incidence, around 60%, of nodular thyroids in older persons.[7,8] Perhaps nodularity represents an aging process. Certainly, a nodular thyroid is a situation that at one time or another will confront almost every practicing physician.

Whether or not thyroid cancer begins more often in a previously diseased gland remains another unsettled problem. Most of the evidence to date sup-

ports the concept that thyroid cancer is independent of other thyroid disease.[9] Although with most thyroid cancer one can feel a lump in the thyroid, it is well to remember that thyroid cancer, especially the papillary form, may appear first in regional nodes. Autopsy studies on clinically normal thyroids show a 2% incidence of hidden cancer.[7,8]

The absolute incidence of thyroid cancer has been estimated to be six per million persons.[4] The five year survival rates for thyroid cancer vary considerably but are quite high when compared to other cancers. Well differentiated thryoid cancers may be present for 15 to 20 years without causing death or severe morbidity.[10] On the other hand poorly differentiated thyroid cancers may have a very rapid course with early death. Crile[4] estimates that four of the six thyroid cancers per million population would be of the rapidly growing type whose course is not significantly altered by any type of therapy. He further argues that the mortality from thyroid surgery is 0.1% and that as 10% of the population have nodular goiter, the deaths from surgery if all these were operated on, would outnumber the deaths from thyroid cancer. However, thyroid cancer can cause death, it can be adequately treated, and early recognition is of utmost importance. Therefore, thyroid cancer remains a therapeutic challenge.

NUMBER OF NODULES

Most authors agree that thyroid cancer is more common in a single nodule than in a multinodular gland. It is virtually impossible to obtain true statistics for these incidences but the popularly accepted figures are those from the Mayo Clinic[10] and are a 7% incidence of cancer in multinodular goiter as compared to a 20% incidence of cancer in the solitary nodule. Clinically solitary nodules may be multiple at operation. Frequently, the importance of this division into single and multiple nodules is misinterpreted. If several nodules are palpated the inference is that this represents a diffuse process whereas a solitary nodule is taken as an indication of a local process. This is not always the case. One may find a diffusely involved multinodular goiter in which one area feels quite different from the rest of the gland. This should be considered in the same light as a solitary nodule. Similarly, a solitary nodule is less ominous if it is of the same consistency as the rest of the thyroid gland. Comparative differences within the thyroid are perhaps as important as the consistency of a given nodule.

THE FUNCTIONAL STATUS OF THE NODULE

It is now well established that thyroid cancer has less avidity for iodine than normal thyroid tissue.[11] Thus, most thyroid cancers are found in cold nodules (defined here as a nodule having less avidity for radioiodine than the paranodular thyroid tissue), a few in warm nodules and rarely, if ever, in a hot nodule (a nodule having greater avidity for iodine than other areas of that thyroid gland). Again, the uptake of radio-active iodine by a nodule is significant only when it is compared to the uptake in the surrounding thyroid tissue.

In one highly selected series of 205 patients[12] in whom thyroid function was mapped out by an automatic scanning device, there were 113 who later had a thyroidectomy. Twenty-two cases of thyroid cancer were found, 20 of these appeared in cold nodules. In the same series the incidence of thyroid cancer in cold nodules were estimated to be somewhere between 17 and 25%. Because of the selectivity of cases one cannot transpose these figures to the population at large, but they do indicate trends. Thus, if one finds a warm nodule in a thyroid gland he is more justified in following this nodule, either with or without desiccated thyroid, than if the nodule does not concentrate radioiodine. Additional diagnostic procedures include the needle biopsy and agglutination studies.

NEEDLE BIOPSY

A needle biopsy is frowned upon when one suspects a primary cancer. The needle may spread via the blood or lymphatics a neoplasm which until that time had been well confined. Also, malignant cells may be deposited along the path of the needle and result in sinus tract formation. Therefore, this procedure is of limited value in the management of nodular thyroid disease. It is of value when thyroiditis is suspected and in this situation it may obviate the need for an extensive surgical procedure.

AGGLUTINATION TESTS

One of the causes of nodular thyroid disease is thyroiditis. Certain types of thyroiditis, particularly Hashimoto's thyroiditis, is usually associated with a high titer of antibodies against thyroglobulin.[13] This has been termed an auto-immune response. When thyroiditis is suspected these tests as well as other tests for abnormal globulins (protein electrophoresis, cephalin flocculation and colloidal gold tests) may be abnormal. Recent observations suggest

that some antibody response to thyroglobulin may be found in a variety of thyroid disorders.[14]

DIAGNOSIS AND MANAGEMENT

The first step in the management of nodular goiter is to determine overall thyroid function and correct either the underactive or overactive state. The diagnosis and treatment of either hyperthyroidism or myxedema is beyond the scope of this discussion. Assuming that overall thyroid function is normal, one then determines the size and extent of the thyroid and the nodule or nodules by symptoms of dysphagia, difficulty in breathing, choking; by palpation, by x-ray, and by localization with radioactive iodine. A large goiter, signs and/or symptoms of compression or obstruction of the trachea, esophagus or other local structures require surgical removal of tissue mass. Factors in favor of a given nodule being cancerous include firmness, consistency different from the rest of the thyroid, and recent growth. Similarly a benign process is more likely when the nodule is soft, part of a diffuse change throughout the gland, and has not shown recent growth.

The function of the particular nodule is then determined. Decreased ability to concentrate radioiodine favors malignancy, and ability to concentrate iodine well favors a benign lesion.

A history of tenderness in the area of the thyroid and diffuse enlargement favors thyroiditis and indicates the need for precipitation and agglutination studies and a search for abnormal globulins.

It is important to emphasize, however, that none of these criteria is infallible and clinical procedures in the evaluation of thyroid nodules are used to determine whether the likelihood of thyroid cancer in a particular situation is relatively great or small. Histiologic study is the only means of proving the diagnosis.

TREATMENT

Therapy may be divided into two major groups, medical and surgical. However, there are certain principles that apply regardless of the therapeutic decision. First, one should take advantage of all possible clinical aids in an attempt to establish a diagnosis before resorting to a major surgical procedure. Second, regardless of the immediate form of therapy, patients with nodular thyroid disease require periodic evaluation. Perhaps we should look upon treatment as a stabilizing force rather than being curative. Adequate therapy can be evaluated only after many years of careful follow-up. Third, as in any disease or group of diseases of unknown etiology repeated re-appraisal of therapy is necessary.

SURGERY

Surgery continues to play a major role in the treatment of nodular thyroid disease. It is first of all a diagnostic procedure. The tissue obtained usually establishes the diagnosis. If pressure symptoms exist these may be relieved. The cosmetic effects of an unsightly goiter may be improved. Only in the small group of patients with well localized disease, be it benign tumor, malignancy or inflammatory response is surgery truly curative in the sense that the disease is removed and only normal tissue remains.

Some will argue that thyroid surgery for nontoxic nodular goiter is a means of cancer prophylaxis. This is fallacious unless one plans to do a total thyroidectomy in all cases. As many nodular thyroids show evidence of diffuse disease, a subtotal thyroidectomy leaves diseased tissue behind with a significant incidence of recurrence.[9] It is wise to consider thyroidectomy initially as a diagnostic procedure. Subsequently therapy will depend upon the histiologic diagnosis.

THYROID HORMONES

The thyroid hormones are extremely valuable in the treatment of nodular thyroid disease. However, as with any medication, their value depends on proper indications and dosage. The rationale behind their use is rather simple and also in part theoretical. If nodular goiter represents a compensatory attempt by the thyroid to overcome some unexplained deficiency or defect, then supplying exogenous thyroid hormone should relieve this deficiency and abolish the added stimulus assumed to come from the anterior pituitary. If full replacement doses are used (3 grains of desiccated thyroid, .3 mgms. of 1-thyroxine or 75-100 micrograms of triiodothyronine), the patient's thyroid is no longer required to make hormone to meet body needs and the gland is placed at physiologic rest. Thus, involution would be expected. As indicated earlier this involution applies only to glandular tissue. Fibrous tissue shrinkage cannot be expected. Inflammatory reactions such as those seen in Hashimoto's disease frequently subside under the influence of thyroid hormones.[15] Smaller doses of desiccated thyroid, 1 to 2 grains a day, will usually prevent further enlargement of benign nodular goiter.

Malignant nodules show less decrease in size under thyroid hormone therapy than do non-malignant nodules. This is a useful, though again not infal-

lible, diagnostic aid. Some benign nodules are reported to virtually disappear when thyroid hormones are given.[16] In my experience this has been the exception rather than the rule.

The use of thyroid hormone as prophylaxis for nodular goiter is not fully appreciated. As the thyroid can be palpated in almost all persons, early changes in size and consistency may be noticed by the alert physician. Critical periods of change in the thyroid seem to be at adolescence, during and immediately after pregnancy, and at menopause. Although total thyroid function may not be measurably altered, proper thyroid administration can prevent the development of goiter whereas, if left alone, the thyroid may enlarge and become nodular.

IODINE

Iodine, usually given as Lugol's solution or potassium iodide, is well established as a means of preventing endemic goiter. When used for this purpose only small amounts (150 micrograms a day) are required.[17] This approximately one drop of saturated solution of potassium iodide every four days. It is almost as well established that iodides are of no value in the treatment of non-toxic nodular goiter.

CORTISONE

Cortisone is of value as an anti-inflammatory agent in some forms of thyroiditis.[18]

CONCLUSION

In conclusion the following points deserve emphasis: (1) thyroid tissue is palpable in almost all patients, (2) immuno chemical techniques and needle biopsy help to distinguish certain types of thyroiditis, (3) functional analysis of various areas within the thyroid provide clues as to the malignancy of a given nodule, (4) major surgery is usually diagnostic, may be therapeutic, but is rarely curative, and (5) the thyroid hormones have prophylactic and therapeutic value.

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Drug Shock Therapy

Preliminary Report on Ditran (JB 329)

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Clinical experience with a new drug in the treatment of several psychiatric disorders is described.

THE SEARCH for somatic treatment of mental disease is unending. The effort to find physical means to influence psychic disorders has increased in this country, particularly during the past decade. Although analytically oriented psychotherapy remains the treatment of choice in many types of nervous illnesses, the discrepancy between the need for psychiatric care for an increasing number of sick people and the inadequate number of professional persons has made it acceptable even for dynamic psychotherapists to engage in somatic treatment procedures. Unfortunately, such procedures require a great deal of time, a highly skilled nursing staff, and, frequently, more money than is available to the institution or the individual. Thus we have seen insulin coma treatment nearly vanish from the scene —not for therapeutic reasons, but for economic and administrative reasons. Even electro-shock treatment has receded into the background in favor of tranquilizers in the large public institutions. However, the adherence to EST by the private practitioner seems to prove its continued value and success in the treatment of affective disorder and certain schizophrenic conditions. These conditions constitute a field of psychiatry where response to drugs has been disappointing and psychotherapeutic measures have been of limited value.

The cost of hospitalization and electro-shock treatment in terms of money, time, and side effects, has nurtured the hope that an improved method could lead to similar results. Lakeside Laboratories' offer to investigate a new drug which had shown promising results in the treatment of depressions was accepted eagerly, if guardedly. The drug, described as a synthesized atropine-like compound (N-Ethyl-3-Piperidyl Benzilate), simulated the hallucinogenic action of the mother substance, atropine. The induced altered feeling states, visual, osmic, and auditory hallucinations, changes in thought and posture, were closely related to psychotic manifestations as seen in toxic and "endogenous" psychoses. The reports by previous investigators stressed the effectiveness, particularly in depressive reactions, after the administration of a single dose.

The following report of personal experiences is based on the findings with one experimental subject and 12 cases, hospitalized at the psychiatric unit of Norfolk General Hospital in Norfolk, Virginia. The patient was not permitted to take the meal preceding administration of the drug. He was transferred from his room to one of the seclusion rooms. The antidotes for excessive reactions (neostigmine and parenteral nembutal) were at hand. Each reported case received an initial dosage of 15 mgs. i.m. Generally, dryness of the mouth, heaviness of the limbs, and an increased pulse, appeared within the first ten to twenty minutes; this was followed by disarticulated speech and slow moving motor reactions, indicating tension of all muscles up to tetanic spasms, and, in one case, convulsions. Approximately one hour after injection, the patient relaxed and an increasing delirious state characterized the succeeding six to ten hours. After this climax, the patient regained contact with reality slowly, took his first meal, and fell asleep soundly after approximately ten to fifteen hours. Heightened accessibility to interviewing, and changed sensitivity to drugs, lasted for one to four days. In the successful cases, the patient usually was euphoric, but soon settled down to a normal mood level.

The rapid symptomatic improvements point to the value of the drug in alleviating mood disorders, specifically depressions and schizophrenic reactions with affective components. It is interesting to see the results in chronic schizophrenics with catatonic symptoms (Cases 7 and 8) which did not respond to EST in the usual way. They showed sudden movement.

	Sex	Age	Clinical Diagnosis	Reaction	Result	Follow-up
1.	M	25	No psychiatric disease	Catatonic-delirious reaction	Resulting in elation for four days	Experimental subject
2.	F	38	Acute depression in hysterical character	Delirious	Marked improvement (residual anxiety)	Meprobamate, discharge
3.	F	29	Schizo-affective reaction	Delirious	Moderate improvement	Insulin sub-coma, State Hospital
4.	M	31	Acute depressive reaction in compulsive character	Short, mild delirium	Moderate improvement	EST
5.	F	26	Acute depression, sex deviation, alcoholism	Excessive, convulsions (Neostigmin, Nembutal)	No improvement.	Insulin sub-coma, psychotherapy
6.	F	31	Acute depressive reaction	Delirious	Marked improvement	Discharge
7a.	F	42	Catatonic stupor (after unsuccessful EST)	Mildly delirious	Marked improvement	Discharge
7b.			Relapse 6 weeks later	Mildly delirious	Marked improvement	Discharge
8.	F	37	Schizophrenic withdrawal (after intensive EST)	Mildly delirious*	Marked improvement	Discharge
9.	F	49	Acute depression in chronic anxiety	Delirium of excessive length (Nembutal)	Moderate improvement	Discharge, psychotherapy
10.	F	25	Acute depression in compulsive personality	Delirious	No improvement	Psychotherapy
11.	M	40	Acute depression (psycho-somatic complaints)	Delirious	Marked improvement	Discharge
12.	F	27	Acute depression	Delirious	Marked improvement	Discharge
13.	F	25	Phobic reaction (Dysphagia)	Mildly delirious	Aggravation	Long term psychotherapy

* Received second 15 mg. 5 hours after administration.

Any diseases which could be influenced unfavorably by the para-sympaticolytic action of the drug were considered as contra-indications.

The mechanism of action is unknown as yet. Hypothetical discussions of the physiological effect on the brain, particularly the bulbar reticular areas, and the suggestion of para-sympaticolytic counter-action against the known para-sympathetic over stimulation in depressions, are beyond the scope of this report summarizing clinical experiences.

The loosening of emotional inhibitions was expected, but the content of the various expressions showed more structural disturbance of thinking than symbolically meaningful content. Thus, paranoid delusions were prevalent, although the created anger was never expressed physically. The patients recalled the sensations of the second half of the reaction time only. It might be mentioned that the recollection of those delirious hours was a unique teaching device for the nursing staff, since they received almost immediate response to their manipulations and therefore a conception of the mistakes they made in handling psychotic patients. There were no reports of horrifying productions or nightmarish memories. None of the patients expresssed fear of repeating the experience. It is believed that the understanding of the happenings within the patients' minds is fostered by self administration of psychomimetic drugs, either of the kind referred to here or LSD.

The beneficial influence Ditran exerted on the cases cited and the demonstrated possibilities of minimizing time and therapeutic complications should encourage further studies, particularly controlled large scale investigations. The specificity of the indications will have to be worked out more clearly. The relationship between body weight and dosage might be found and the effect of repeated dosages on refractory cases will have to be explored. The significance of typical "epileptic" tracings in electroencephalographic examinations will be studied to an increased extent. Neurophysiological research laboratories, hopefully, will provide theoretical answers.

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The Problem of Treatment of Atherosclerosis

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Atherosclerosis does not respond readily to treatment and some of the agents used widely are not only expensive but of questionable value.

THERE ARE MANY QUESTIONS involved in the treatment of atherosclerosis and its consequences: Is it practical? Does it do any good? Is it economically feasible? Is it based upon a firm scientific footing? Is it oversold by those who stand to profit financially? Who should be treated?

These and other questions have not been settled by the maze of scientific papers which are probably greater in number than basic experiments.

With a certain embarrassment at putting another paper on the pile, we submit this brief review in an effort to bring a little clarity from the confusion in the minds of many practicing physicians.

WHY TREAT?

A particular treatment may need no scientific basis other than the fact that it works. Such was the case with foxglove and quinine. So far, there is no conclusive evidence that any treatment for atherosclerosis works in man. It has been pointed out that its development may be influenced by diet, sex, age, activity, metabolic rate, the use of tobacco, inheritance, mental and physical stress, and concomitant disease. Thus, a disease with so many variables becomes a therapeutic problem. Of the factors listed—and there may be others—only three can be controlled by treatment. These are found in Table 1. Table 2 lists factors which cannot be influenced by human means. Table 3 lists factors which may be influenced partially by human means.

It would appear that one starts with a treatment disadvantage in that perhaps the more important variables can be controlled little, if any, by treatment. The disadvantage, however, should not prevent treatment in the individual if there is a small chance of preventing or delaying a leg amputation or a myocardial infarction.

TABLE 1

FACTORS THAT MAY BE INFLUENCED BY TREATMENT

1. Diet
2. Tobacco
3. Physical Activity

TABLE 2

FACTORS THAT CANNOT BE INFLUENCED BY TREATMENT

1. Age
2. Sex
3. Inheritance

TABLE 3

FACTORS THAT MAY BE INFLUENCED PARTIALLY BY HUMAN MEANS

1. Mental and physical stress
2. Metabolic rate
3. Concomitant disease

The issue is beclouded, not clarified, by reducing all the factors—known and unknown—to the common denominator of serum lipids as reflected in a cholesterol determination. It is well recognized that serum cholesterol levels in man can be lowered by the reduction of total fat and the judicious substitution of one type of dietary fat for another.[1] Infarction of cerebrum and myocardium occurs as a result of severely sclerosed arteries, but such has not been clearly produced experimentally.[2] So far, evidence is lacking that these dreadful complications of atherosclerosis can be prevented by the lowering of serum cholesterol.

On the other hand, there is evidence for the belief that cholesterol is intimately connected with the development of atherosclerosis:[3]

1. Anatomical and chemical studies have shown cholesterol to be deposited in atherosclerotic lesions.
2. Atherosclerosis has been produced experimentally in numbers of animals by the feeding of diets high in cholesterol.
3. High levels of plasma lipids and lipoproteins

are found in some patients with clinical atherosclerosis.

4. Atherosclerosis occurs frequently and prominently in diseases which are accompanied by an abnormally high cholesterol.
5. Although the question is not finally settled, atherosclerosis is a purported rarity among people whose diet contains little or no animal fat.

In summary, the reason for treating atherosclerotic diseases by diet is that there seems to be some connection between the two; it is harmless and may be beneficial.

The cost will be considered below. The checking of a blood cholesterol occasionally, and the prescribing of certain items of diet, may give the patient the idea that "something is being done" which is a useful instrument in the art, if not the science, of medicine.

WHOM TREATED?

There is no method for the clinical recognition of early atherosclerosis. In other words, the disease must be "advanced", or cause complications, before it can be recognized. Recognizable disease can be diagnosed earliest by indirect means such as electrocardiography, appropriate roentgen study and, by implication, a determination of the serum lipids as reflected in the cholesterol. The cholesterol determination is cheap, simple and as accurate as any other single test.[4]

Average serum cholesterol levels are higher in people with coronary disease than in normal controls.[5] It has been proposed that the optimum normal range of serum cholesterol would be 120-180 mg. per cent.[6] Measurement of other blood lipid fractions does not, at present, help in the treatment of the individual case.[7,8]

On arriving at a decision about whom to treat, it is granted that the physician must be somewhat arbitrary. Indeed, one could make a case for treating anyone over the age of fifteen, or even five, because of the insidious nature of atherosclerosis. The physician can make a plea for ordinary prudence in weight and diet without sounding the voice of doom. He can urge caution in the tendency of the American diet to become fatter and fatter.

After pondering the matter, the authors have decided arbitrarily that patients will be treated only if they are cooperative. It accomplishes nothing to insist upon a mentally inflexible, elderly person changing the dietary habits of a lifetime.

If cooperation is granted, it is deemed wise to treat people who fall into one or more of the following groups:

1. Patients with clinical evidence of atherosclerosis.
2. Patients without clinical atherosclerosis, but with a strong family history of atherosclerosis.
3. Patients who are overweight.
4. Patients with a repeatedly high, fasting serum cholesterol.

Obesity has been correlated with coronary atherosclerosis.[9,10] Coronary disease, however, occurs in those not overweight and many overweight people do not have coronary disease. Even though its effect on coronary atherosclerosis remains debatable, weight reduction of the obese is generally considered prudent.

HOW TREATED?

The reduction of serum cholesterol and the maintenance of a lowered serum cholesterol have proved unsuccessful by the following dietary means:

1. Limitation of cholesterol alone in the diet.[11,12,13]
2. Low animal fat diets, without restriction of vegetable fats.[14,15]

Cholesterol *can* be lowered by restriction of *all* fats to 50 grams, or about 20 per cent of the caloric intake, with substitution of polyunsaturated fatty acids for neutral fats.[16,17] The greater the substitution of unsaturated for saturated fats, the greater the degree of cholesterol lowering; thus, no benefit is obtained by merely adding a supplement of polyunsaturated fat to an otherwise unchanged diet.[18,19,20]

A more recent modification of the diet has suggested restricting saturated fatty acids to about 10 per cent of the calories in the diet with an additional 10-20 per cent of the calories being derived from polyunsaturated fatty acids.[21] This permits a palatable gourmet-type diet and one that lowers blood cholesterol in the majority of persons while still providing an adequate amount of protein, minerals, and vitamins.

The number of grams of fat, in relation to total calories, would break down as follows:

Total Calories	Grams Saturated Fat	Grams Unsaturated Fat
2500	28	28-56
2000	22	22-44
1500	16	16-32
1200	13	13-26

It has been stated that linoleic acid (a polyunsaturated fatty acid) is a dietary "essential" for adults, and that an early manifestation of its de-

ficiency is an elevated serum cholesterol.[22] There is no evidence, however, to support this contention.[23] The effectiveness of the above diet is more likely due to a wide array of polyunsaturated fatty acids and a reduction in the saturated fats and does not result from the utilization of any one "essential fatty acids." [24,25]

The potential market for some agent to reduce the dreaded cholesterol has led manufacturers to promote, and physicians to accept, products and treatment routines of highly questionable value. With the lay press arousing the public to the possible connection between high level of blood cholesterol and premature aging, some physicians are almost conscience-stricken if they do not leap into the latest fashion.

It is perhaps fair to say that whether a person is treated by other than dietary means will depend, in large measure, upon his compulsive need to "do something" or his physician's compulsive need to "do everything".

A number of polyunsaturated fatty acid preparations are available and are nothing more than an adjunct to treatment with the basic low fat diet (Table 4). It is obvious that the capsule preparations listed are of little value since they contain such small amounts of unsaturated fatty acids. The vitamin supplements, Methionine, Choline, Inositol, etc., have no proven value.

It is made obvious in the table that the taking of the capsules is absurd since it would require sixty to ninety a day, at a cost of $65.00 to $135.00 per month. These items are stocked in the drug stores and sold on the prescription of physicians who have been misled into believing that one capsule three or four times a day may be of value. There are cheaper placebos!

Corn oil (Mazola) is mentioned because it is cheap and is as rich in unsaturated fats as any pharmaceutical preparation. Since heating does not alter its degree of saturation, it serves as a valuable substitute for saturated fats in the kitchen. It may be concluded that, with proper diet and the use of unsaturated vegetable oils, no expensive unsaturated fat preparations are helpful or necessary.

Several margarines recently have been given widespread medical and lay publicity. Based on the preceding discussion under Diet, the content of *poly*unsaturated fatty acids becomes an important factor in comparison. Linoleic acid is a *poly*unsaturated

TABLE 4

PRODUCT	MANUFACTURER	COMPOSITION	APPROXIMATE PRICE FOR A MONTH'S SUPPLY*
Arcofac	Armour	15 cc.=6.8 grs. linoleic acid 1.0 mg. pyridoxine	$18.00
Atheroxin	Harvey Co.	15 cc.=7.5 grs. refined corn oil 1.6 mg. pyridoxine	$16.50
Lecithin (granules)	R. G. Glidden	15 cc.=2.8 grs. linoleic acid .2 grs. linoleic acid Plus choline, inositol	$45.00
Linodoxine	Pfizer	15 cc.=4.5 grs. linoleic acid 5 mg. pyridoxine 20 mg. mixed tocopherols	$21.00
Mazola	Corn Products Refining Co.	14 cc.= 7 grs. linoleic acid 11 grs. total unsaturated fatty acids	$ 1.26 (2 oz. per day)
Saff	Abbott Laboratories	15 cc.=7.0 grs. linoleic acid	$10.00
Saf-Lac	Carnation Milk Co.	32 oz. reconstituted= 40 grs. linoleic acid 8.0% non-fat milk solids 5 mg. pyridoxine	Not generally available
Lenic Capsules	Crooks-Barnes Laboratories	880 mg. of mixed unsaturated fatty acid per capsule	$120.00
Lufa Capsules	U. S. Vitamin Corporation	378 mg. mixed unsaturated fats plus Methionine, Choline, Inositol	$135.00
Linodoxine Capsules	Pfizer	Linoleic acid 500 mg.) Pyridoxine 1.4 mg.) Per Capsule Mixed tocopherols 7.12 mg.)	$65.00

*Based on 30 grams unsaturated fat per day

fatty acid. On the other hand, oleic acid is a monounsaturated fatty acid. The importance of the "degree of unsaturation", as a hypocholesterolemic factor, has not yet been established but present thinking favors the *poly*unsaturated fats.

Emdee margarine has a much higher content of linoleic acid than the other margarines (Table 5) and has proved to be a valuable adjunct to a low fat diet when substituted for regular margarine.[27] No similar studies have been reported with use of the other two margarines.

TABLE 5

APPROXIMATE FAT COMPOSITION OF MARGARINES:

	Emdee (Pitman-Moore Co.)	Fleischmann's[28] (Standard Brands, Inc.)	Mrs. Filbert's[29] (J. H. Filbert, Inc.)
Unsaturated Fatty Acids			
Linoleic	45%	15%	12%
Oleic	24%	65%	57%
Linolenic	0	0	1%
TOTAL	69%	80%	70%
Saturated Fatty Acids			
Lauric-palmitic) and Stearic)	29%	Not given	30%
Iodine Number	97	90	Not given
Price per pound	$1.00	$ .39	$ .27

Beta-sitosterol (the main sterol of cotton seed oil, talloil, and wheat germ oil) and gamma-sitosterol (the principal sterol of soybean oil) are closely related to cholesterol in chemical structure, but differ in that they are not appreciably absorbed from the digestive tract. Administration of these sterols to patients on restricted diets has resulted in a sustained reduction of serum cholesterol.[30,31,32,33] Interference by sitosterol, with the absorption of cholesterol, both dietary and that excreted into the gastrointestinal tract, is presumably responsible for this hypocholesterolemic effect. No toxic or undesirable side effects have been observed.

Only one sitosterol is now available. The dosage necessary is three to six grams, taken immediately before meals. Although the manufacturer advertises that the patient can eat a free diet while taking this medication, it is recommended that the low fat diet be used. At the lower dose, the price of the only commercial preparation (Cytellin, Lilly) would run about $20.00 per month. It is possible that this preparation would be the best approach in the more affluent and inflexible patient.

Large doses (3-6 grams daily) of nicotinic acid, but not nicotinamide, have been successful in reducing serum cholesterol in many patients without alteration in the diet.[34,35,36,37] Since the mechanism of its action is not known, this is considered an experimental drug when employed in this dosage.

One gram capsules of nicotinic acid can be prepared easily by a druggist for about five cents each, or about $6.00 for a month's supply. Taken immediately after meals, the degree of flushing is lessened and usually disappears after the first week. One semi-high dosage nicotinic acid capsule is available from a pharmaceutical house. It is Vastran Forte (Wampole Laboratories) which contains 375 mg. nicotinic acid, per capsule, plus other vitamins. They cost eight or nine cents each, or about $16.00 per month. It would appear that this treatment is more practical than capsules of unsaturated fatty acids.

The prolonged and continued administration of estrogen compounds has been shown to lower serum cholesterol.[38,39,40,41,42,43] This is purely experimental and the occurrence of gynecomastia, diminished libido and impotence thus far has restricted the use of this therapeutic approach. More recent reports on the use of thyroid[44] and iodothyronines are also of interest but completely experimental, and not recommended for use at this time.

Heparin preparations have been advertised for the treatment of atherosclerosis. Two such preparations are (1) Clarin (Leeming and Company), a tablet used sublingually four times a day at a cost of about $40.00 per month, and (2) Hep-nine B Fortis (Columbus Pharmaceutical Co.), which consists of heparin, choline and vitamin B_{12}, is injected and costs about $85.00 per month on the basis of two injections a day.

There is no basis for the therapeutic use of the lipotrophic agents Choline, Methionine and Inositol. Similarly, iodides have been administered empirically without proof of clinical benefit. There are many of these preparations on the market. Some are listed in Table 6.

TABLE 6

PRODUCT	MANUFACTURER	PRICE
Delphicol	(Lederle)	$4.20 per hundred
Gericole	(Sherman Lab.)	5.85 per hundred
Iodo-Niacin	(Cole-Chemical Co.)	7.20 per hundred
Lipoliquid	(Lakeside Lab. Inc.)	7.15 per pint
Lipotaine	(Stuart Co.)	4.65 per hundred
Lipotriad	(Smith Pharmaceutical Co.)	4.05 per hundred
Methischol	(U. S. Vitamin Corp.)	3.95 per hundred
Monichol	(Ives-Cameron Co.)	5.70 per 12 ounces
Vascutum Improved	(Schen. Labs. Pharmaceuticals, Inc.)	9.00 per hundred

IF TREATED?

Assuming a patient has had his cholesterol reduced by diet and drugs, there is no control experiment to show that he would not have gotten along equally well without the bother and expense. It is true that some patients will be benefited psychologically and it will enable the physician to offer more frequent advice concerning the things that can be controlled (Table 1).

What, then, should be the physician's attitude regarding diet, cholesterol, drugs, tobacco, and the clamor that they cause? Simply stated, his attitude should be one of moderation, a willingness to go along if a person desires treatment; he should be reserved in promising any benefit; if he prescribes drugs at all, the ones that are most promising and cheapest should be prescribed. The physician can make a plea for a normal diet, the concept of which has become confused in this generation of prosperity, "home economics", "homemaking", and high-powered advertising by the food industries.

As always, he can encourage moderation in smoking and activity and avoid the blind acceptance of highly-promoted ideas. Above all, the physician should avoid riding the loop-the-loop of the cholesterol clamor; it may end where it starts—in a low place.

CONCLUSIONS

1. The treatment of atherosclerosis is practical only in that it may encourage people to eat moderately of a normal diet. It is practical in that it may satisfy a psychological need of the patient, the physician, or both.
2. There are no figures to support a conclusion that treatment does any good. It may do some good but it is an experiment difficult to control.
3. The dietary part of the treatment is economically feasible because it probably is cheaper than a diet rich in saturated fats. There is no justification, at present, for the use of drugs—some of which are quite expensive.
4. The treatment of atherosclerosis is not, at present, on a firm scientific footing. The deductions from the available data cannot encompass all of the variables involved in such an experiment.
5. Means of treatment of atherosclerosis are frequently oversold and overbought. Physicians cannot be held entirely lacking in responsibility for this fact.

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Triethylene Melamine in the Management of Lymphosarcoma

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Triethylene melamine has been found to be useful by many in management of lymphosarcoma. In this review 60% of 180 patients had a remission.

A PRELIMINARY STUDY of lymphosarcoma[45] showed that triethylene melamine, TEM, was the second most frequently used chemical in the management of this malignant blood disease. Ariens[3] rated TEM next to nitrogen mustards in the control of lymphosarcoma, and Brimi[11] and Wintrobe, and associates,[51] considered these two drugs as second only to X-ray therapy, while Rundles, et al,[44] gave TEM first place.

A number of complete remissions have been reported in the more than fifty studies on the management of lymphosarcoma with the alkylating agent, TEM, during the last decade. In 1958 Arrau, et al,[5] described eight good and two fair remissions in 12 patients; three years earlier Arrau and Nijamkin[4] noted eight other excellent remissions in as many patients on this drug. Hambly and Robertson[23] classified four responses as excellent and four as good in nine patients. Bayrd and associates released two reports on the cancerostatic action of TEM: in one[6] they described six good remissions of four to six weeks in eight patients, and in the other[7] they observed three good responses and one fair in five patients.

Karnofsky, and coworkers, have released a series of clinical studies on the action of TEM on lymphosarcoma: in 1950[24] they estimated that TEM was two to three times as effective as the N-mustard, HN_2, when given intravenously to patients with lymphomas and leukemia; in 1951[25] they recorded good responses lasting to nine months in five of seven patients with lymphosarcoma who received the drug intravenously, and good responses in four of eight patients for as long as five months who were administered the medication orally: in 1953[26] they noted that only two of eight patients showed brief objective regression of tumors when the drug was given orally. Linke and Lasch[33] reported good remissions in three patients, and Shimkin, et al,[48] noted two good and one fair response, lasting to two months, in three others. J. C. Wright, et al, in 1952[52] observed fair regressions in three patients on TEM, and in 1955[53] they described four complete and two partial responses in seven patients; in 1950 L. T. Wright, et al,[54] catalogued two good and one fair improvement in three patients. In 1955 Shimkin[49] reported good palliative effects in 28 patients with lymphosarcoma and reticulosarcoma who were placed on TEM.

Only two of 14 patients with lymphosarcoma had good remissions following TEM treatments, according to Haddow.[21] Burtner, et al,[12] reported one excellent and one fair response in three cases, and Bond, et al,[10] described one good control of tumor growth and subjective improvement in two patients with lymphosarcoma, but they added that the hematologic response was poor. Yanguas[55] narrated excellent remissions among 19 patients, including decrease in the size of tumors and improvement in the bone marrow, but the effects averaged only three weeks. Aboul-Nasr[1] and Pribilla[41] both recorded good remissions in single cases of lymphosarcoma after treatment with TEM. Aboul-Nasr also reported poor response in one patient placed on TEM and cortisone. Alpert[2] stated that lymphosarcoma and chronic lymphocytic leukemia were better controlled by TEM than were Hodgkin's disease or chronic myelocytic leukemia in his study of 52 patients. Erf[15] noted only five marked regressions in 33 lymphomas, including 11 lymphosarcomas. Bohnel and Stacher[49] employed x-rays, TEM, N-mustard and kanamycin to induce good palliation in 83 cases of malignant diseases of the lymphatic system, including four lymphosarcoma patients. Ortolan[39] observed some response in patients with lymhosarcoma who received

TEM with $NaHCO_3$. DiPictro[14] reported two good remissions in two patients on TEM.

A number of investigators have recorded only fair to poor management of patients with lymphosarcoma who were administered TEM. Beizer, et al,[8] described clinical improvement in three of four patients, and Colsky, et al,[13] observed clinical response in three of nine patients. Ferrari and Kasdorf[16] chronicled some benefit in four of seven patients but they warned of the danger of bone marrow damage in the use of TEM. Gellhorn, et al,[20] judged TEM to be less toxic than HN_2, and they described six fair responses in seven patients, with two effects lasting from six to twelve months. Kravitz, et al,[29,30] in two studies reported brief responses in two of seven cases, and in four of five cases. Rottino[43] recorded two fair remissions in eight patients given TEM, and one remained in remission seven months after being placed on the drug. Sawitzky and Meyer[46] found the toxic effects of TEM were worse in Hodgkin's disease than in lymphosarcoma, just as Alpert had noted; these investigators stated that four of the eight lymphosarcoma cases showed leucopenia on the drug. Garciqa[19] reported that one patient did not respond as well to TEM as to irradiation and N-mustard. Lenti and Gavosto[32] had one of two patients showed some response to TEM. Marmont and Fusco[34,35] conducted two investigations on the action of TEM on lymphosarcoma, and they observed some improvement in three cases; they employed citrovorum factor to counter the toxic effects of the drug. Fisher and Perlis[17] used x-rays, ACTH, splenectomy and TEM in the treatment of one patient, and later Fisher[18] obtained a complete clinical and hematologic remission and three partial remissions in five patients with TEM therapy. Other investigators reporting fair responses to TEM therapy of lymphosarcoma include Lattanzi and Pardelli[31] in one patient, Haehner, et al,[22] in two cases, Pavlovosky and Vilasega[40] in two cases, and Schulze, et al,[47] in three cases.

Several clinical reports on the use of TEM in the management of lymphosarcoma record no clinical or hematologic response: Klima and Hornischer,[27] Koyama, et al,[28] Milic,[36] and Mirkowska-Stelmasiakowa[37] reported no response in single cases, and Rhoads, et al,[45] found none in two cases. Mrazek and Wachowski[38] found serious bone marrow depression in patients with Hodgkin's disease (65 cases) lymphosarcoma (18 cases), and other lymphomas, following treatment with TEM or N-mustards.

SUMMARY

Sixty of the 240 patients listed in this review on the management of lymphosarcoma by TEM occur in reports which fail to tabulate the results of the therapy. This gives a remission rate of 60% for the 180 patients whose responses were described. The ratio of good to fair remissions (56 to 61) is also quite favorable. Three factors were considered in seeking to evaluate good and fair remissions, namely, improvement in symptoms, the hematologic response, and the duration of the remissions.

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Raises Blood Pressure

A close relationship between suppressed anger and high blood pressure was reported in the April Archives of General Psychiatry.

Dr. Donald Oken, Chicago, writing in the American Medical Association journal, said a study of 10 psychiatric patients with normal blood pressure provides "additional support for the hypotheses which relate hypertension and inhibited anger." In the study, interviewers aroused anger, anxiety, and depression in the 10 subjects while their physiological response was being recorded.

"The data obtained in this study indicate a close relation between anger and both heart rate and blood pressure, especially the latter."

When subjects who expressed their anger vocally and physically were compared with those who repressed it, the latter showed a higher diastolic blood pressure, but there was no significant difference in heart rate. In the absence of heart rate changes, diastolic blood pressure is primarily a function of peripheral resistance (the narrowing of the smallest branches of the arteries throughout the body).

The results indicate that "persons who inhibit anger will have a higher diastolic blood pressure (and peripheral resistance) than those who more freely express it."

"The relevance of these findings to the thesis that essential hypertension may be the result of chronically inhibited angry feelings is clear. This disease is characterized by an elevated peripheral vascular resistance."

Although the findings are far from "proof" that anger plays a causal role in hypertension, they do underline the importance of anger and the need for its further study.

Dr. Oken is associated with the Institute for Psychosomatic and Psychiatric Research and Training, Michael Reese Hospital.

Public Health . . . .

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Zoonoses of Importance to Virginians

At this meeting there have already been presented problems resulting from urbanization. It seems fitting to extend the previous comments to include the pessimistic, or perhaps realistic, hypothesis that the social animal known as man is slowly but surely breeding himself into oblivion. He is doing this through over-crowding the earth's surface, contamination of the atmosphere, depletion of natural resources, and creation of resistant strains of microorganisms in addition to inventing weapons capable of instantaneous genocide. Let us continue this self-appraisal of "auto-inadequacy" with a short discussion of nature's passive assault on our claim of superiority among Earth's creatures.

Theobald Smith has said: ". . . The human race is in a rather delicate, unstable relation to its environment . . . science is steadily deepening its insight into nature's laws and guided by this insight, controlling the daily and hourly conflict of nature with mankind. . . ."

While Americans have struggled through the Sanitary Revolution, progressed beyond the Industrial Revolution, and sped rapidly into the Scientific Revolution on to the Space Age—Mother Nature with her brood of Viruses, Bacteria and Rickettsia has managed to keep fairly good pace. Defeated in some instances, she has remained victorious in others, and has suffered only temporary set-backs in additional areas. Furthermore, she is constantly regrouping her forces for fresh assaults.

As we concentrate our population, or suburbanize as the social scientists prefer to label it, she smiles perceptibly. For she knows that MIGRATION results in a shift in the level of risk!

There are four basic ways in which geography affects disease:

1. The location of animal and human populations.
2. The presence of insect vectors.
3. The existing sanitary circumstances.
4. The adequacy of medical care.

As Public Health Veterinarian I am concerned with the first of these: The location of animal and human populations.

The opportunity for man to be exposed to one or more of the 100 or so recognized zoonoses increases directly with the concentration of the human population.

As we have agreed, man is a social animal. As such he enjoys companionship. His dogs, cats, parakeets and riding horses offer him this companionship. They offer him also their viruses, mycoses, bacteria and some of their internal parasites. Unfortunately, he frequently accepts their generous offers and then shares with them their discomfort and misfortune.

But intimate contact with pets is not the only way nature perpetuates her zoonotic brood. She has found that eons of time are not always necessary for species adaptation. Following the 1918 influenza pandemic the swine population experienced an influenza panzootic, now thought to be due to a rapid adaptation of the human influenza organism to swine. Today, at least four species, horses, ducks, chickens, and swine, suffer from strains almost identical antigenically and quite likely adapted from man's type A Influenza. This adaptation can work in either direction so that a disease originating in the human population may spread to the lower forms and thence back to humans.

Perhaps the relation of Canine Distemper to Measles is a result of a viral adaptation. Who is to say whether the first case of measles was the result of viral adaptation from a pup infected with distemper or vice versa? Certainly their antigenic similarity causes one to speculate on a common etiology.

Haemadsorption Virus type I, known to cause a respiratory disease in man, is now suspected of being involved in the etiology of the shipping fever complex in cattle.

Excess population concentrations of wild animals have wrought havoc on communities. The experience of our western counties with fox and skunk

This paper was presented before the Health Directors' Section of the Virginia Public Health Conference, Roanoke, Virginia, May 19, 1960, by Martin B. Marx, D.V.M., M.P.H., Public Health Veterinarian of the Virginia State Department of Health.

rabies certainly testifies to this and as further evidence we know that fox control programs have accounted for many well documented reductions in rabies epizootics. In 1959 Virginia, with 167, was ninth among the States in the number of confirmed rabies cases. We were third in the number of confirmed fox cases, 97. Tennessee was fourth with 68.

A build up in the rabbit population can usually be counted upon to result in a high incidence of Tularemia in our human population. Wildlife surveys predicted a record crop of rabbits in Virginia during this past hunting season—this occurred. Along with it in the month of January, 1960, Virginia recorded the greatest number of cases of Tularemia in fifteen years.

Our records indicate that the southeastern section of Virginia regularly reports an unusually high prevalence of human Brucellosis. This section is a Modified, Certified, Brucellosis-free area as far as the cattle are concerned. This means that less than 1% of the cattle and less than 5% of the herds show positive agglutination titers for this infection. Because of its low prevalence in cattle and the fact that typing of the organisms has on occasion shown them to be B. abortus, which are found in swine almost as often as in cattle, we feel that contact with hogs represents the source of infection. Of course the pork packing industry in that area is quite extensive and while no controlled study has yet been done to prove such statistically, circumstantial evidence would seem to indicate a positive correlation between this industry and the presence of brucellosis in the area.

Trichinosis affects an estimated 15% of the population of the United States, according to examinations of muscle tissue for trichinae larvae. The majority of infections are subclinical, but even those with clinical symptoms frequently escape recognition. The high prevalence, the manner of transmission, the frequent severity and the occasional fatal outcome of the disease make Trichinosis a matter of public health concern. A fatal case of trichinosis was reported to the State Department of Health in April of this year. I mention this historic disease to point out that the old problems are still with us even though they come to our attention but rarely.

(*To be continued*)

Monthly Report of Bureau of Communicable Disease Control

	June 1960	June 1959	Jan.-June 1960	Jan. June 1959
Brucellosis	4	4	17	13
Diphtheria	1	2	8	6
Hepatitis (Infectious)	69	18	491	207
Measles	1029	1502	5681	13,672
Meningococcal Infections	3	5	34	52
Aseptic Meningitis	2	—	12	—
Poliomyelitis	0	8	0	15
Rabies (In Animals)	16	13	131	99
Rocky Mt. Spotted Fever	4	3	6	11
Streptococcal Infections	422	399	3865	5947
Tularemia	0	2	22	9
Typhoid	2	1	5	12

Mental Health . . . .

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School Phobia: A Case Abstract with Analytic Interpretations

The refusal to attend school is seen relatively frequently, occuring as the manifestation of neurotic conflicts which are "displaced" to the schoolroom as a substitute for the family situation. The following case is typical:

CASE: "Paul" 10-6-58: Eight year old Paul was referred by his teacher because he had missed more than half of the school days since the beginning of the semester and continued to become very upset when attending. He cried a great deal, seemed to be startled at the door, unable to enter the room, complained of stomach aches, vomiting and headaches. This description suggested a school phobia. There were three younger siblings: the youngest, Bernie, born four months prior to the consultation.

When interviewed at the clinic Paul reported that he would rather stay at home than go to school because only at home could he be happy. When he could not stay with his family he felt bad, had to cry. He blamed most of his inability to attend school on stomach aches and the fact that "there is no real purpose at school and the teacher is no good." He wondered, though, why he had these feelings since he remembers that he had an enjoyable time last year in the first grade when his achievement was rated above average. He added that he was envious of the brothers and sister and remembered with some relish, the chicken-pox he suffered last year when he was "pampered all over". He has now lost all his buddies and does not care about playing outside anymore. Paul, who seemed to be physically healthy —an impression confirmed by his pediatrician—reported that he slept well although he suffered with some nightmares: "I woke up crying. I dreamed that I had played with the baby's ball, I lost the ball and wanted to find it so that Bernie would not feel bad. Then I saw a whole yard full of identical balls and I could not find Bernie's." On another occasion he dreamed he was looking after the baby when a lady took Bernie out of the carriage and put him on a raft, rendering Paul unable to fetch his brother back. The mental status of the boy was characterized by neat appearance, intact orientation and memory, slowness of thinking and motor activity, some depressed quality of mood and perfectionism for details. He talked like a little adult, parroting even difficult words. He was aware of being ill.

The family background showed the mother clinging to the son to the extent that she did not allow him to eat school lunches, "because it might not be healthy for him." The father seemed to be outstanding for his complete absorption in his job, or, as the boy says, "he is always out making money." At the end of the first interview both patient and mother were firmly told that the boy had to attend school since this was the job prescribed by law for a boy of his age.

10-14-58: The boy had returned to school but felt "sort of frightened."

He brought acorns into the office and seems too preoccupied with fantasies about the "bigness" of these. Drawings of boys and girls brought out the same theme. He was able to talk about his playing "with my penis" which he does quite often immediately after the mother has tucked him under the cover. He suffers similar impulses at school.—10-20-58: He was reluctant to use his fingers in finger painting but at the end of the hour smeared enthusiastically, even violently. When this change was verbalized by the therapist he withdrew, became mute and resistant.—10-23-58: The mother said that the boy was whiney, unhappy, and refused to go to school. He was allowed to stay out one day. The next morning a repetition occurred, the mother accusing the therapist of setting "a bad precedent". During play session the same day the only pressure exerted was the one to return to school, which he did the next morning. The mother had to sit with him in class.—10-29-58: This was his birthday, which he utilized for discussion of the birth process. Anatomical drawings surprised him by his finding that the organ in which the baby grows and the stomach are separated and not the same.—11-7-58. The patient whistled, threw darts with great penetration and anger, using the father doll as a target. He stated "daddy cannot

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Approved for publication by Commissioner, Department of Mental Hygiene & Hospitals.

throw well, I can do it better." He did not mistreat the mother figure quite as badly.—11-19-58: Paul is being seen twice a week now. Playing checkers occupies much of each hour.—1-12-59: Paul is rather regular at school but cannot use the school bus and frequently asks the mother to stay in the room.

Later in January and February he showed fast improvement with subsiding anxiety and "happiness in school."

A follow-up interview in February 1960 showed the boy missed only one day with the "flu" during the entire year.

The treatment of the boy was paralleled by work with the mother who brought out the interpersonal relationships during her early life and learned to recognize similarities between those and the ones involving her husband and Paul as well as the significance of the birth of her youngest child. Her parents were immigrants during the depression years. Paul's grandfather's gardening and farming did not prosper well, therefore grandmother worked as a nurse during most of her mother's life until the grandmother died at mother's age of 13, precipitating a severe guilt reaction of not having cared enough for the now deceased mother during her lifetime. The mother feels that she assumed the mother role in the home, her father treating her like he treated his wife, that is not paying much attention to her. She felt abandoned by both her mother and her father. When she married, against her father's wishes, the husband was not able to develop a warm satisfying attitude. Thus in all her frustrations she turned to the oldest son since she was now deadly afraid that he also would reject her. To prevent this she fulfilled every whim of the little boy. The arrival of the youngest baby made Paul very jealous and, as she continues, provoked his anxiety since it asked for a larger degree of independence than ever before. His role as "head of the household" was threatened as was his clinging to the mother. The stress of separation was answered by a closer attachment, even including imitation of her pregnancy symptoms, which were characterized by vomiting.

Paul and his mother became dimly aware that his refusal to attend school served as a mechanism to keep control over the family and to make sure that the siblings would not receive more attention and pampering than he does; also as a mechanism to win the power struggle and to make sure the parents would not leave as punishment.

DISCUSSION

In examining this abstract history, incomplete as it must be, we find three distinct elements disturbing the emotional equilibrium of this boy: First, the mother's past life experience made her expect that every relationship of hers would end up in frustration and separation. This frustration left only one available outlet for her own dependence needs: the oldest son—her last hope. Such an attitude made the normal separation process impossible. Secondly, the boy was timid and unusually inhibited in expressing normal or neurotic feelings of hostility and agression. When provoked, as in the instance of the birth and intensive care of the youngest sibling, he withdrew into his own shell unable to act out or sublimate his anger. Only in dreams in which he hurts Bernie, or in which Bernie was carried away on a raft, could he demonstrate his feelings of resentment. When the mother, although the reasons appeared to be realistic, loosened her grip on him, the only mode of action for keeping control of the situation was found in a matter-of-fact way, that is, not leaving her side. Also, when forced to relinquish this desired and forbidden relationship, he partially identified with the then hostility provoking object and the condition which led to the present predicament—pregnancy and childbirth. He developed stomach difficulties a process which was the easier, the less clear his body image and the anatomy were to him. Third, he was preoccupied with sexual, that is, genital matters. The absence of the father and the close attachment to his mother tended to confuse his recognition of his sexual roles to a great degree. Normal identification images were unattainable.

Translated into Freudian terminology, it can be said that this boy was unable to resolve the Oedipal situation because of the unconscious seduction by the mother, generating a great deal of guilt feelings in both. The boy was afraid of punishment for his strivings and retaliation on the hand of the father. Such revenge could take the course of either removing the guilt provoking relationship, that is, the mother would be separated from the boy, or being penalized and hurt for his "masculine" ideas. An escape into the pre-oedipal oral-anal phase of development was sought and oral gratification of his needs attempted. The school situation interfered with such regression.

In accordance with the foregoing the following course of treatment was considered to be mandatory:

1. Treatment of mother and child had to be instituted immediately.

2. The mother had to be helped to develop relationships outside the mother-son constellation and to recognize that she was a victim of the compulsion to repeat her earlier life experiences, regardless of whether these were realistic or unrealistic.

3. The boy had to learn that verbalization or substitute acting out of agression is socially acceptable and will not be followed by retaliation. He needed to face up to the realities of the birth process and relinquish an emotional attachment to the mother. Then, lessening of the guilt in the boy, and loosening of the mother's hold on him, would allow separation without producing overwhelming anxiety.

CONCLUSION

School phobia represents one of the real psychiatric emergencies. The prognosis for the efficacy of treatment varies directly with the time factor. When the patient is allowed the opportunity to consolidate his adaptation on a basis of secondary gains it is extremely difficult to break the neurosis and reinstate a more healthy attitude. The issue in the treatment is not to permit the syndrome to become entrenched in the personality, an event responsible for so many failures of short term or long term therapy. Thus it seems to be the responsibility for schools and family physicians to recognize the syndrome, not confusing it with either some undefined variety of gastroenteritis, or even worse, with laziness, being spoiled or malingering.

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New Lung Disease

A case of an apparently new lung disease is described by three Mayo Clinic physicians in the May 28th Journal of the American Medical Association. The disease, termed pulmonary alveolar proteinosis, causes pathological changes in the lungs and a variety of symptoms.

The authors of the article are Drs. Edgar G. Harrison, Jr., Mathew B. Divertie, and Arthur M. Olsen, Rochester, Minn.

"The disease is one of unknown cause, variable course, and uncertain outcome."

The first report of the disease was made in 1958. The three physicians said the disease could have gone unnoticed among the multitude of other lung diseases, perhaps as a variant of one of them, or it could be a disease process being encountered for the first time.

The disease is characterized by a dense material, containing a high content of fat, that fills the air sacs (alveoli) of the lungs. It is predominantly a disease of adult males. So far, only 35 cases have been reported.

The case described by the Mayo physicians represented the ninth fatality due to the ailment. The victim was a 42-year-old wholesale fruit merchant. There had been some speculation as to whether occupation had a role in causing the disease. In six reported cases, they said, the victims worked with lumber, five in lumberyards and one as a carpenter.

Some investigators had speculated that the disease may be connected with modern living in view of the numerous aerosols, volatile solvents, and plastics to which the patients may have been exposed. However, the fruit merchant had no history of exposure to any fruit or vegetable sprays.

There is no known treatment for the disease.

Pre-Paid Medical Care....

Edited by
RICHARD J. ACKART, M.D.

On June 9 the *Hopewell News* reported that Mr. Floyd L. Boddicker, manager of the local Hercules Powder Company plant, had written a letter to all plant employees discussing the fact that, "Because of greater usage . . . the Hopewell plant cost per employee (is) the highest of the forty different Blue Cross Plans in which our Company participates throughout the country." The letter in its entirety, a most excellent discussion of the utilization problem which is affecting all Virginia communities, was incorporated in the news-story. Then, the following day, the *News* published an editorial on the subject, directly quoting Mr. Boddicker's salient points and adding astute comment—to the end that the editorial is indeed a proper one for inclusion on this page as thought-provoking reading for the physicians of Virginia. With the kind permission of the editor of the *News,* Mr. Gus Robbins, Jr., and of Mr. Boddicker, the following is presented.

R.J.A.

Abuse of Blue Cross Will Lead To Socialized Medicine.

An Editorial
Hopewell News, June 9, 1960

We believe that it is perfectly true that unless the abuse of voluntary health plans is stopped and the spiraling costs reversed, we will soon get socialized medicine.

From the pretty terrible experiences in Britain with socialized medicine we feel sure that neither our people or our doctors want that.

We commend Hercules Plant Manager Floyd Boddicker for the forthright way in which he outlined the problem in his letter to all employees. We do hope that every citizen of this area, no matter what plan they are under, read that letter carefully in The News yesterday and will take it to heart.

As Mr. Boddicker pointed out, figures show that hospital use in the Richmond area Blue Cross plan runs consistently higher than the average of all Blue Cross plans across the nation and the difference is growing larger. To quote:

"In 1957, the number of patrons admitted in the Richmond area was 10 percent higher than national Blue Cross average; in 1958 it increased to 13 percent; and, in 1959, the Richmond area admittance was 18 percent higher. Furthermore, the average stay in a hospital under Richmond area Blue Cross was nearly one day longer (8.4 days vs. 7.5 days) than countrywide Blue Cross average. As a result Richmond Blue Cross patient days per thousand members was 31 per cent higher than the average of all Blue Cross plans last year."

This is something for all of us to think about, particularly in this area as the average for Hopewell and Petersburg is higher than the average for all the Richmond area Blue Cross!

Mr. Boddicker explained the rapid increase in costs as follows:

"Hospital and Surgical costs have skyrocketed for many reasons. Inflation of about 4 percent a year, improved insurance coverage and higher wages to hospital workers resulting from a 40 hour work week, account for only a portion of the increase. The largest contributor toward higher cost is the greater use of expanded hospital facilities. Hospital beds in the Hopewell-Petersburg area have tripled in the last eight years and are probably in excess of real needs. This encourages unnecessary hospitalization and, consequently, results in a high hospital-surgical cost, particularly if the patients do not share the expense. Furthermore, Comprehensive Blue Shield has increased doctors' fees to $15 for the first day of hospitalization, $10 for the second day, $5 for the next five days and $4 for each succeeding day.

"If the present conditions are allowed to continue we can expect further increases in the Blue Cross-Blue Shield costs because ample existing hospital facilities encourage maximum, rather than minimum stays; doctors get high fees per patient visit and are

able to visit many more patients if they are hospitalized; and people insist upon or accept doctors' advice on hospital treatment when it is not essential, since it costs the patients nothing."

But, actually, it does cost the patient. Every time expenses go up the cost of living goes up. In the long run this Blue Cross and Blue Shield cost is paid by everyone. When there is a waste, abuse or unnecessary expenses saddled on the economy, all of us pay the bill.

There is no "free lunch". That is a sham and a delusion. We all pay the bill, sooner or later, in one way or another. Some people or some groups may benefit for a time, but there is no escaping the fact that increased costs have to be paid by all consumers eventually.

We would say that the blame lies about 50-50 with the people who are covered by Blue Cross and Blue Shield and the doctors. It's all too easy to say "this will cost you nothing, it is covered by Blue Cross." And it is all too easy to accept that statement.

But thinking people must recognize that the statement is just not true. When Mr. Boddicker spoke of "sky-rocketing" costs he was not just using a figure of speech. His letter shows that only seven years ago, in 1953, the cost of family coverage under Blue Cross and Blue Shield was only $6.90 per month. By 1958 when Hercules agreed to pay the entire cost, this had risen to $11.90, an increase of 72 percent. But, this year of 1960 the cost has risen to $21.87 per month per family!

That is a fantastic increase. While the company pays all of this cost, as many companies do, it must be remembered that such increases in cost *must be absorbed by the consumer.* For Hercules cannot continue to do business and provide jobs unless it can meet competition and make a profit. So such increases eventually hit the pocketbook of all of us.

We would like to see other companies, as well as civic and service organizations, start a campaign to educate people to just what this all means. For just as sure as politicians infest Washington it is going to lead to socialized medicine. Our doctors have taken the lead in opposing this, they certainly should take the lead in eliminating all abuse, waste and excessive expenses, so that these voluntary health plans can reduce costs and stay in business.

Griseofulvin in Arthritic Ailment

Griseofulvin, an antibiotic proved effective against certain skin infections, is being used to treat an arthritic ailment. The new development was reported by Drs. Abraham Cohen, Richard Daniels, and William Kanenson, all of Philadelphia, and Dr. Joel Goldman, Johnstown, Penn., in the June 4 Journal of the American Medical Association.

They had achieved good results in 12 patients suffering shoulder-hand syndrome, a disease that affects the nerves and circulation, and is characterized by pain, tenderness, and limitation of movement of the shoulder, hand, and fingers.

"We are unable to give a scientific explanation for our findings," the physicians said. "This is a preliminary report in the hope that others might use this method to either confirm or refute our findings."

The four physicians said they experimented with griseofulvin after noting that when it was used to treat fungus infections of the skin any inflammation associated with the infection disappeared along with the infection.

Proceeding on the theory that the antibiotic was an anti-inflammatory agent, they began administering it to patients with rheumatoid arthritis, including those with shoulder-hand syndrome.

Although those with shoulder-hand syndrome benefited, those with rheumatoid arthritis did not.

The physicians said this led them to believe that griseofulvin was not an anti-inflammatory agent.

Dr. Cohen is director of the Arthritis Clinic at Philadelphia General Hospital. The co-authors also are associated with General Hospital.

Cancer Notes . . . .

National Cancer Conference

"Changing Concepts Concerning Cancer" will be the theme of the Fourth National Cancer Conference to be held on the campus of the University of Minnesota at Minneapolis, September 13-15, 1960.

Many of the Nation's outstanding cancer research scientists and clinicians will attend the meeting, sponsored jointly by the American Cancer Society and the National Cancer Institute of the Public Health Service, Department of Health, Education, and Welfare.

The Conference will focus on three general topics: 1) causation, 2) development and spread, and 3) treatment of cancer. In addition, panels of scientists will discuss the leukemias and lymphomas, cancer of the breast, lung, gastrointestinal tract, genitourinary system, head and neck, and skin.

An evening session, entitled "Cancer in the World Around Us," will be concerned with air pollution, industrial cancer hazards, food additives, radiation, smoking, and other environmental factors associated with the occurrence of cancer.

Dr. Roald N. Grant, of the American Cancer Society, who is coordinator of the Conference, said he expects more than 2,000 scientists and physicians from this country and abroad to attend the three-day meeting.

"These men and women will have the opportunity to exchange information about their achievements in the diversified effort to find more effective ways to cope with the problem of cancer," Dr. Grant said. "The membership of the panels has been drawn from experts in fields ranging from cancer virology to chemotherapy."

Dr. Grant placed special emphasis on the timeliness of the Fourth National Cancer Conference. "Laboratory and clinical research is producing new knowledge of cancer at an unprecedented rate," he explained. "The possible bearing of this research on the effort to control cancer will certainly be a prime subject for discussion.

"Medical science has for some time been saving one out of three cancer patients but has possessed the ability to save one out of two, if all patients were diagnosed and treated early enough.

"Perhaps now, we are on the brink of substantial improvement in this picture. The discussions in Minneapolis could point to great opportunities for even more impressive progress against cancer."

The First National Cancer Conference met in Memphis, Tennessee, in 1949 and the second in Cincinnati, Ohio, in 1952. In 1956, the Conference assembled in Detroit, Michigan, and the sponsors plan to organize similar national meetings every fourth year.

The following is the preliminary program of the Fourth National Cancer Conference

SEPTEMBER 13

Changing Concepts Concerning Cancer—Dr. Michael B. Shimkin, Bethesda, Maryland

Cancer Etiology

Chairman: Dr. Howard B. Andervont, Bethesda, Maryland

Panelists:

Sir Alexander Haddow, London, England
Dr. Kelly H. Clifton, Madison, Wisconsin
Dr. W. E. Heston, Bethesda, Maryland
Dr. Hilary Koprowski, Philadelphia, Pa.
Dr. Arthur C. Upton, Oak Ridge, Tennessee

Cancer of the Breast

Chairman: Dr. Edward F. Lewison, Baltimore, Md.

Summary Session Participant: Dr. Alfred M. Popma, Boise, Idaho

Treatment End Results Reporter: Dr. Robert C. Hickey, Iowa City, Iowa

Panelist:

Dr. Abraham Lilienfeld, Baltimore, Md.
Dr. Jerome Urban, New York, New York
Dr. Vincent P. Collins, Houston, Texas
Dr. Robert A. Huseby, Denver, Colorado
Dr. Ian Macdonald, Los Angeles, California
Dr. Donald B. Shahon, Minneapolis, Minn.

Cancer of the Lung

Chairman: Dr. Alton B. Ochsner, New Orleans, La.

Summary Session Participants: Dr. Arthur J. Vorwald, Detroit, Michigan

Treatment End Results Reporter: Dr. Walter L. Mersheimer, New York, N.Y.

Panelists:

Dr. Dean Davies, New York, N. Y.
Dr. Oscar Auerbach, East Orange, N. J.
Dr. Katharine Boucot, Philadelphia, Pa.
Dr. Richard Overholt, Boston, Massachusetts
Dr. James J. Nickson, New York, N. Y.

Cancer of the Female Genital Tract

Chairman: Dr. Joe V. Meigs, Boston, Massachusetts

Summary Session Participant: Dr. John L. McKelvey, Minneapolis, Minn.

Treatment End Results Reporter: Dr. Howard B. Latourette, Iowa City, Ia.

Panelists:

Dr. H. R. Pratt-Thomas, Charleston, S. C.
Dr. Alexander Brunschwig, New York, N. Y.
Dr. Milford Schulz, Boston, Massachusetts
Dr. John G. Masterson, Brooklyn, New York
Dr. Joseph H. Pratt, Rochester, Minnesota
Dr. Hans-Ludwig Kottmeier, Stockholm, Sweden

SEPTEMBER 14

Frontiers in Biology and Cancer Research—
Dr. George W. Beadle, Pasadena, California

Cancer Pathogenesis and Spread

Chairman: Dr. Warren H. Cole, Chicago, Illinois

Panelists:

Dr. Leslie Foulds, Buckinghamshire, England
Dr. George E. Moore, Buffalo, New York
Dr. Lauren V. Ackerman, St. Louis, Missouri
Dr. Philippe Shubik, Chicago,, Illinois

Cancer of the Gastrointestinal Tract

Chairman: Dr. I. S. Ravdin, Philadelphia, Pa.

Summary Session Participant: Dr. Joel W. Baker, Seattle, Washington

Treatment End Results Reporter: Dr. Charles B. Clayman, Chicago, Ill.

Panelists:

Dr. Clifford Barborka, Chicago, Illinois
Dr. Gordon McNeer, New York, New York
Dr. William Longmire, Los Angeles, Calif.
Dr. J. Engelbert Dunphy, Portland, Oregon
Dr. Philip Hodes, Philadelphia, Pa.

Cancer of the Male Genitourinary Tract

Chairman: Dr. Reed M. Nesbit, Ann Arbor, Mich.

Summary Session Participant: Dr. Herbert Brendler, New York, N. Y.

Treatment End Results Reporter: Dr. N. Henry Moss, Philadelphia, Pa.

Panelists:

Dr. Nicolai Blokhin, Moscow, USSR
Dr. Willard Goodwin, Los Angeles, Calif.
Dr. Wyland Leadbetter, Boston, Mass.
Dr. Donald McDonald, Rochester, N. Y.
Dr. Willet Whitmore, Jr., New York, N. Y.
Dr. Eric Boyland, London, England

Leukemias and Lymphomas

Chairman: Dr. Sidney Farber, Boston, Mass.

Summary Session Participant: Dr. Alfred Gellhorn, New York, N. Y.

Treatment End Results Reporter: Dr. Robert J. Rohn, Indianapolis, Ind.

Panelists:

Dr. M. Vera Peters, Toronto, Canada
Dr. Mila Pierce, Chicago, Illinois
Dr. Sarah E. Stewart, Bethesda, Maryland
Dr. Johannes Clemmesen, Copenhagen, Denmark
Dr. R. Wayne Rundles, Durham, N. C.

Cancer in the World Around Us

Chairman: Dr. John R. Heller, Bethesda, Md.

Dr. Lester Breslow, Berkeley, California
Air Pollution

Dr. Norton Nelson, New York, New York
Industrial Carcinogens

Dr. Eric Boyland, London, England
Food Additives and Contaminants

Dr. Arthur C. Upton, Oak Ridge, Tennessee
Radiations, Natural and Man-made

Dr. Abraham Lilienfeld, Baltimore, Maryland
Smoking and Other Habits

SEPTEMBER 15

Care of the Advanced Cancer Patient—
Dr. Herman E. Hilleboe, Albany, New York

Cancer Therapy

Chairman: Dr. Owen H. Wangensteen, Minneapolis, Minnesota

Treatment End Results Reporter: Dr. Sidney J. Cutler, Pittsburgh, Pa.

Panelists:

Dr. Albert Segaloff, New Orleans, La.
Dr. Ralph Jones, Miami, Florida
Dr. Michael J. Brennan, Detroit, Michigan
Dr. John B. Graham, Buffalo, New York
Dr. George T. Pack, New York, New York
Dr. Franz T. Buschke, San Francisco, Calif.

Cancer of the Skin

Chairman: Dr. Thomas B. Fitzpatrick, Boston, Massachusetts

Summary Session Participant: Dr. Eugene Van Scott, Bethesda, Maryland

Treatment End Results Reporter: Dr. Edward T. Krementz, New Orleans, La.

Panelists:

Dr. Hermann Pinkus, Detroit, Michigan

Dr. Herbert Lund, Greensboro, N. C.
Dr. John Stehlin, Jr., Houston, Texas
Dr. Francis Lynch, St. Paul, Minnesota
Dr. Helen Curth, New York, N. Y.

CANCER OF THE HEAD AND NECK

Chairman: Dr. William S. MacComb, Houston, Texas

Summary Session Participant: Dr. Edgar Frazell, New York, N. Y.

Treatment End Results Reporter: Mr. George Linden, Berkeley, Calif.

Panelists:

Dr. Danely Slaughter, Chicago, Illinois
Dr. H. Mason Morfit, Denver, Colorado
Dr. Milton T. Edgerton, Baltimore, Md.
Dr. R. Lee Clark, Jr., Houston, Texas
Dr. J. W. J. Carpender, Chicago, Illinois

CANCER CONTROL

Chairman: Dr. John R. Heller, Bethesda, Maryland

Summary Session Participant: Dr. David A. Wood, San Francisco, Calif.

Panelists:

Dr. Anthony R. Curreri, Madison, Wisconsin
Dr. Emerson Day, New York, New York
Dr. E. Cuyler Hammond, New York, N. Y.
Dr. Lewis C. Robbins, Washington, D. C.
Dr. Paul E. Boyle, Cleveland, Ohio
Dr. Mack I. Shanholtz, Richmond, Virginia

SUMMARY SESSION

Chairman: Dr. Eugene P. Pendergrass, Philadelphia, Pennsylvania

Panelists:

Dr. Alfred M. Popma, Boise, Idaho
Dr. Arthur Vorwald, Detroit, Michigan
Dr. John L. McKelvy, Minneapolis, Minn.
Dr. Joel W. Baker, Seattle, Washington
Dr. Herbert Brendler, New York, N. Y.
Dr. Alfred Gellhorn, New York, N. Y.
Dr. Eugene Van Scott, Bethesda, Maryland
Dr. Edgar Frazell, New York, N. Y.
Dr. David A. Wood, San Francisco, Calif.

Effective Against Acne

Two new lotions which dry, peel, and degerm the skin of persons with the common form of acne have proved effective in clinical tests. "The use of these drying agents, as adjuncts to the usual therapeutic routine, resulted in improvement of acne lesions in 873 of 909 patients," according to an article in the May 7th Journal of the American Medical Association.

The new agents (Fostril Lotion and Fostril HC Lotion) do not sensitize or stain the skin.

The best results were observed in patients who had unusually severe oiliness of the skin while blond patients with thin and not too oily skin experienced the less favorable results and most of the irritating reactions.

Fifty-one patients reported an initial slight irritation to the treatment, but on later applications their skin appeared to have become conditioned to the lotion.

Girls could use the lotion as a makeup base, a thin film to match blond skin and a heavier film for brunets.

Authors of the article are Drs. Samuel M. Bluefarb, department of dermatology, Northwestern University Medical School and Cook County Hospital, Chicago; Charles L. Schmitt, department of dermatology, School of Medicine, University of Pittsburgh, and Charles M. Howell, Jr., department of dermatology, Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N.C.

Miscellaneous . . . .

The X-ray Department as a Teaching Tool

"Why did Mrs. Doe get her breakfast? Now her G. I. cannot be done until Monday—resulting in added time in the hospital."

"Who was responsible for Mr. Jones getting a laxative last night after he had his Telepaque tablets? We will have to cancel the G. B."

Were these errors in judgment, lack of interest or inadequate knowledge? These were the questions we felt should be answered to prevent the errors that were occurring when our patients were scheduled for x-ray.

About four years ago, we started rotating all senior student nurses through the x-ray department for two days. They would give A.M. care to two patients scheduled for x-ray and then go to the department from 8:30 until 3:00 P.M. Immediately these students began to show more interest in the x-ray preparation of their patients. Because of this experience, the students were able to allay some of the patients' fears by explaining to them what would occur in x-ray. So the patient, the nurse and the x-ray department all gained from the additional knowledge.

If the experience was beneficial to students, why wait until the senior year? We felt that this was an excellent learning experience but that it would be even more meaningful if it could be given to the student while having her medical-surgical classes. So now each freshman student is assigned to x-ray for four mornings, Monday through Thursday, one or two students at a time.

Dr. Lawrence Stetson, Roentgenologist at Louise Obici Memorial Hospital, Suffolk, with two student nurses as they discuss x-ray films. The freshman student pointing to the chest film is Miss Brenda Mathews with her classmate, Miss Jean Race.

The success of our program has been entirely due to the interest our Roentgenologist has taken in the students and his willingness to teach. We discussed our plans with him when we first considered assigning the seniors to his department. We had another conference with him when we thought the freshman could benefit from such a program. The students report to x-ray at 8:15 A.M. They put on the "pink goggles" and at 8:30 A.M., eyes accustomed to the glasses, don lead aprons and go with the doctor to

watch fluoroscopic examinations. They never leave his side. He explains procedures, shows them good and badly prepared patients, lets them view x-rays with him, and "listen in" on consultations with other physicians. They have commented on how much more meaningful are the orders of "No Breakfast", "Enemas until clear" and "Nothing by Mouth". Their interest, their knowledge and their judgment have improved. Although they have only a total of eight to ten hours in the x-ray department, the importance of x-ray as a diagnostic procedure is very real to them. I would like to quote one of our students—"It would have meant nothing to me unless Dr. Stetson had taken as much time as he did explaining things to us and pointing things out. It was a good review of anatomy, too. I understand now why my part is important in the preparation of the patient."

Not only do the students profit from the experience by increasing their knowledge of x-ray technics, but through this knowledge they are able to give better patient care. We feel that this has been a very profitable experience and we will continue to send our students to x-ray.

Cornelia P. Friend, R.N., B.S.N.E.
Director of Nursing Service and Education

Plump Child Grows Faster

A plump child generally grows faster and matures earlier than a slender child. This conclusion was drawn from a study of 259 Ohio-born boys and girls which was reported in the June Journal of Diseases of Children, published by the American Medical Association.

"Childhood fatness results in accelerated growth and advanced maturation in both sexes," according to Stanley M. Garn, Ph.D., and Joan A. Haskell, B.A., Fels Research Institute, Yellow Springs, Ohio.

"Though body size in childhood is obviously determined by many variables, among them parental stature, accumulated fat is clearly related to size superiority during the growing period. It is not unreasonable to conclude, therefore, that an excess of calories is growth-accelerating, with the degree of acceleration related to the energy surplus."

Between the ages of one-and-a-half and 12-and-a-half, children above the average in fat were advanced in height by approximately half a year's growth.

The relationship between fatness and body size was more marked among girls, perhaps because of a wider range of fatness found in the female.

Referring to chubby children, they said "their developmental acceleration carried them to earlier puberty, on the average, and to earlier cessation of linear growth."

Increased fat storage is associated with advanced body development during prepuberty and early puberty.

The two researchers undertook the study because of current interest in overnutrition or supernutrition, repeated reports that more and more American children are obese, and the lack of data on children who are only moderately fat.

The youngsters studied ranged from one-and-a-half to 17-and-a-half years of age and were not selected on the basis of fatness.

Editorial . . . .

Should the Cancer Patient be Told?

DURING THE FIFTEEN MONTHS the *New Medical Materia* has been published over twenty surveys have been conducted by this fact-finding magazine. A recent poll conducted among physicians elicited replies from over 50% of those circularized. This was the greatest percentage of replies any question had brought forth. The principal question asked was "Should a physician tell a patient that he has incurable cancer?" The reason for this phenomenal response was due, no doubt, to the fact that most physicians have had to answer this question so often in the course of their practice that the majority have worked out a personal philosophy that enabled them to reply with a minimum of thought and effort.

Questionnaires of this type are of special interest, for they enable us to compare our own thoughts and conclusions with those of physicians engaged in various types of practice in different parts of the country. The first query in the current questionnaire concerned the wisdom of telling a patient that cancer was suspected in his case but not confirmed. The "never tell" and the "always tell" were virtually identical—about 18% each—whereas the "sometimes tell" were 64%. The most instructive feature of these replies concerned the circumstances that would prompt the large group who "sometimes tell" to inform the patient as to the possibility of cancer. The consideration most frequently mentioned was "to insure the patient's cooperation" and the second most often noted was "when the patient is stable."

The second question dealt with the wisdom of telling a patient that he had incurable cancer. Here the "never" and "always" were 22% and 16% respectively, while the "it depends" were 62%. The considerations upon which the decision rested included stability of the individual, insistence on the part of the patient, his business needs and urging of the family.

Other questions dealing with estimation of life expectancy and notification of the family were also discussed in this informative questionnaire. It is strange that the simple question of telling, versus not telling, the patient that he has cancer was not discussed, for this is the most frequent decision that has to be made in dealing with malignancies. The omission of this question makes one wonder if the editor of *New Medical Materia* felt that there was no intermediate status between suspected cancer and incurable cancer but this could hardly have been the case in view of the general tone of the survey.

The writer feels that the decision as to whether a patient should be told that he has cancer should be made only after consideration of many factors. This is true especially when the outlook is not good. It is true that many patients state that they wish to know if they have cancer but generally speaking, when they say this, they actually mean that

they want to be reassured that they do not have a malignancy. The patients who desire to be told that they have cancer, if this proves to be the case, are probably in the minority. As a rule these people can be recognized and their wishes should be respected and their questions should be dealt with frankly and fully. Business considerations may require detailed knowledge on the part of the patient. The problem arises in those who wish to hear only a favorable reply. The author's usual approach to this perplexing question is to give an oblique answer to the initial question by referring to the condition as a "tumor" and to be governed by the course the subsequent conversation takes. The tenor of the patient's remarks will often give the proper cue. The family may be of great aid in determining the best course to follow but the final decision as to what should be said rests with the physician.

The extensive educational campaigns and numerous magazine articles dealing with the symptoms and treatment of various types of cancer have resulted in widespread knowledge concerning malignancies on the part of the laity. This means the majority of patients undergoing treatment for cancer know full well the nature of their condition without being told. They frequently adopt an unspoken working agreement with their physician in which they carefully avoid asking him embarrassing questions, on the basis, that he, in turn, will not tell them unsolicited disagreeable facts about the nature of their illness. This is probably a very good way to handle it as long as the patient agrees to have those procedures done, which are necessary for the proper treatment of his illness. If he refuses to cooperate in essential matters, the physician, or more likely the surgeon, has no choice but to discuss frankly the nature of his disease and the need for the therapy in question. Most patients, however, do not make this necessary.

Cancer is a bleak word at best and should not be used without good reason. Many of our patients still feel that the diagnosis of an internal cancer is tantamount to a death sentence. When it is necessary to use this ugly word the most favorable outlook, consistent with the realities, should be given. Few situations require a more careful choice of words, for these patients weigh everything said by their physician and they are all too prone to draw mistaken and unduly pessimistic conclusions about their illness. When hope is lost, all is lost, and the life span of many patients with carcinoma has been shortened materially by incautious and thoughtless remarks made by their medical attendant.

Harry J. Warthen, M.D.

Current Currents

HEALTH CARE OF AGED: The subject of health care of the aged continues to be the big news in both medical and political circles. The importance attached to it by both political parties has been amply demonstrated during the recent conventions. Every physician should study carefully the official policy of the American Medical Association as set forth in the following statement adopted by its House of Delegates at Miami Beach:

"Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the federal government, and then only in conjunction with the other levels of government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice should be preserved. The use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the American Medical Association."

REVERSING THE FIELD: There is one thing for sure—no one really knows from what direction political winds will blow. For example, the California Medical Association reports that on February 8, 1958, in San Francisco, Edmund G. "Pat" Brown, candidate for governor, stated "I feel very strongly against any state medicine or socialized medicine of any kind, nature or description."

A letter to Senator Clair Engle from Gov. Brown, dated April 25, 1960, and released to the press on April 27, concluded "I urge action in favor of the principles embodied in the Forand Bill at this session of the Congress."

AUXILIARY PROGRAM: Each member of The Medical Society of Virginia will soon receive a card outlining the very excellent program planned for doctors' wives during the 1960 Annual Meeting at Virginia Beach. It is hoped that the card, sent at the request of the Woman's Auxiliary, will be taken home in order that the physician's wife can make her plans early. Auxiliary members in the Norfolk-Virginia Beach area have arranged a series of trips and events which sound absolutely fascinating.

MEDICAL SEMINAR CRUISE: The Duke University School of Medicine will this fall sponsor a post-graduate medical seminar cruise which should be of interest to many

Virginia physicians. The cruise will begin at New York on November 9, will visit the Virgin Islands and San Juan, Puerto Rico, and will return to New York on November 18.

The instructional program will provide twenty hours credit toward post-graduate requirements of the American Academy of General Practice. Shipboard lectures on various subjects in medicine, pediatrics and surgery will be presented by members of the Duke Medical School Faculty.

ANNUAL MEETING: Although the program committee has again come up with an outstanding scientific program for the meeting at Virginia Beach, your Editors wish to call special attention to the session to be presented Wednesday morning, October 12. This is one you will not want to miss and should, by all means, include in your plans. The final speaker will be Dr. R. B. Robins, member of the Board of Trustees of AMA. He will have many interesting stories to tell.

NATIONAL LIBRARY OF MEDICINE: The National Library has recently added a 1650 first edition of a work by John Bulwer. The full title, believe it or not, is as follows:

"Anthropometamorphosis: man transform'd; or, the artificial changeling. Historically presented, in the mad and cruel gallantry, foolish bravery, ridiculous beauty, filthy finenesse, and loathsome lovelinesse of most nations, fashioning & altering their bodies from the mould intended by nature. With a vindication of the regular beauty and honesty of nature. And an appendix of the pedigree of the English gallant."

KEOGH BILL: The Washington report on the medical sciences states that Senator Byrd has informed the Senate he favors and will vote for the Keogh Bill (HR 10) in the form it was amended by the Finance Committee. Senator Byrd's declaration undoubtedly puts the Bill in its most favorable position yet.

Senator Byrd is quoted as saying "I believe the Committee Bill is the best approach to the problem proposed to date. It will reach individuals in a wide variety of trades and professions in a reasonable manner and within a pattern already existing in the Internal Revenue Code."

1960 ANNUAL MEETING—VIRGINIA BEACH
OCTOBER 9-12

Society Activities . . . .

American Medical Association.

At the annual meeting of the Association, held at Miami Beach, Florida, Dr. Leonard W. Larson, Bismarck, North Dakota, was named president-elect. He had just completed his term as chairman of the Board of Trustees.

Dr. E. Vincent Askey, Los Angeles, was installed as President. Dr. William F. Costello, Dover, New Jersey, was named vice president; Dr. Norman E. Welch, Boston, was re-elected Speaker of the House, with Dr. Milford O. Rouse, Dallas, as vice-speaker.

The Eastern Airlines strike apparently had its effect on the registration at this meeting and many physicians were unable to attend. There were 8,162 physicians registered compared to 13,143 in Atlantic City last year.

Dr. Julian P. Price, Florence, South Carolina, was elected new chairman of the Board of Trustees.

The 1960 Clinical Meeting of the Association will be held in Washington, D. C., in December. The 1961 Annual Meeting will be in New York City.

Norfolk County Medical Society.

Dr. John Franklin has succeeded Dr. W. Wickham Taylor as president of this Society. Dr. Mason C. Andrews has been named president-elect; Dr. Howard I. Kruger, vice-president; Dr. Meyer I. Krischer, recording secretary; Dr. George F. Elsasser, corresponding secretary; Dr. William Hotchkiss, secretary; Dr. John Thiemeyer, speaker; and Dr. Joseph D. Lea, vice-speaker.

Portsmouth Academy of Medicine.

Dr. Lemuel Mayo has been elected president of the Academy, with Dr. H. M. Kunkle as vice-president, Dr. L. L. Davis, secretary, and Dr. E. A. Barham, treasurer.

At the annual meeting held on June 6th, the members adopted a resolution that a physician be on the field and in attendance at all high school football games. Dr. R. M. Cox is in charge of setting up this program which will work through the school involved and, in some cases, on a voluntary basis.

Seaboard Medical Society.

James M. Habel, Suffolk, has been elected president of this Society. Dr. William Romm, Moyock, North Carolina, and Dr. David T. Tayloe, Washington, North Carolina, are vice-presidents, and Dr. G. S. Taylor, Norfolk, secretary-treasurer. The annual meeting was held at Nags Head, North Carolina, the latter part of June.

News Notes . . . .

New Members.

Since the list published in the July issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Kurtz Edward Alderman, M.D., Clintwood
Harold John Berman, M.D., Alexandria
William Stewart Burton, M.D., Nassawadox
Joseph Samuel Costa, M.D., Arlington
William Taylor Dabney, M.D., Richmond
Hunter McGuire Doles, M.D., Norfolk
Grahame F. Henson, M.D., Charlottesville
George Joseph Arthur Magnant, M.D., Arlington
Robert Irvin McClaughry, M.D., Alexandria
Oriel Carlin Morris, M.D., Arlington
Virgil Atwell Motley, Jr., M.D., Abingdon
James Edwin Patterson, M.D., Marion
Heinz J. Strasser, M.D., Stanardsville
Marvin Louis Weger, M.D., Richmond

Dr. Waddell Honored.

A portrait of Dr. W. W. Waddell, Jr., University of Virginia, has been presented to the Medical School by residents who received their pediatric training under him. Dr. Waddell was honored by his former residents at a testimonial dinner at the Farmington Country Club on June 9th. The portrait was painted by Bronislaw A. Makielski.

Faculty Members Promoted.

The following faculty members of the Medical College of Virginia have been promoted to full professorships in the department of medicine:

Dr. Elam Toone, Jr., was made professor of medicine.

Dr. Solomon Papper was made research professor in medicine.

Dr. John L. Patterson, Jr., was also made a research professor.

Reregistration in Maryland.

The State of Maryland has reregistration of physicians triennially. This law became effective June 1st. All physicians who possess a license to practice medicine and surgery in Maryland, who have not received a registration application from the Board of Medical Examiners of Maryland by September 1, 1960, should notify the office of the board immediately. This includes physicians living out of the State who possess a Maryland license to practice medicine and surgery and who wish to keep their license active.

Dr. John Hamilton Allan,

Chairman of the Orthopedics Department of the University of Virginia, has been re-appointed to the Over-All advisory Council on Needs of Handicapped Children by Governor J. Lindsay Almond.

Dr. M. K. Humphries, Jr.

Governor J. Lindsay Almond has re-appointed Dr. Humphries to the Virginia Commission for the Visually Handicapped.

New Publication.

The first news publication devoted exclusively to the field of pediatrics appeared in July. "Pediatric Herald" is a 12-page tabloid to be issued monthly by Editorial Projects, Incorporated, and will be distributed free to some 10,000 pediatricians and 70,000 general practitioners. It will provide comprehensive coverage of developments in the preservation of health and the treatment of disease during childhood and adolescence.

The new publication is sponsored jointly by Wyeth Laboratories, Gerber Products Company and Pfizer Laboratories.

Dr. Julius C. Darden

Has received the Outstanding Citizens' Award from the Salem Rotary Club. He was cited for 54 years of "humble, unselfish" service to the town.

Dr. Fred D. Maphis, Jr.,

Has entered the Medical College of Virginia for a two-year residency in pediatrics. He has practiced since 1946 at Strasburg.

Medical College of Virginia Alumni.

Dr. Woodrow C. Henderson, a Richmond dentist, has been elected president of the Alumni Association of the Medical College of Virginia, succeeding Dr. Richard A. Michaux, also of Richmond. Dr. Peter N. Pastore, Richmond, is president-elect for 1961-62. New vice-presidents are Dr. Charles B. Wilkerson, Jr., Raleigh, North Carolina, Dr. Alexander L. Martone (dentist), Norfolk, Hunter M. Gaunt, a Winchester pharmacist, and Miss Mary Esther Gibula, a Richmond nurse.

Dr. R. Reginald Rooke, pharmacist, was named secretary, and Dr. James T. Tucker was re-elected secretary-treasurer. Both are from Richmond.

Dr. Fred T. Renick

Has recently been elected a member of the Martinsville City Council. He has practiced pediatrics there for the past thirteen years.

Dr. William P. Sellers,

Norfolk, won the Cruising Class big-boat sailing race in the Portsmouth Boat Club Regatta.

"Diabetes Guide Book for the Physician".

The Virginia Diabetes Association is suggesting that all hospitals supply this book to their interns and residents. This will help the house staff in the diagnosis and treatment of the diabetic and the unsuspected diabetic patient.

This guide book may be obtained from the American Diabetes Association, Incorporated, 1 East 45th Street, New York 17. The price is $1.00 each—less if bought in larger quantities.

Dr. W. E. Moody,

Scottville, has been re-elected surgeon of the Virginia Department of the Veterans of Foreign Wars. He was state commander in 1957 and is now serving commander of the Scottsville Post.

De Paul Hospital Staff.

Dr. Helen W. Taylor has been elected president of the medical staff of the De Paul Hospital in Norfolk. It is believed that she is the first woman to become president of a hospital staff in Virginia. Dr. Taylor succeeds Dr. John Thiemeyer. Dr. Robert K. Maddock was named president-elect and Dr. Charles E. Horton was re-elected secretary.

Dr. Bernard Massie,

Recently associated with the Clinch Valley Clinic in Richlands, has opened offices at North Tazewell.

Dr. Thompson Receives Grant.

The American Heart Association has awarded a $5,500 grant-in-aid to Dr. W. Taliaferro Thompson, Jr., to conduct research at the Medical College of Virginia. Dr. Thompson is chairman of the department of medicine. He will study the way the exchange of gases in the lungs is altered by diseases of the heart and blood vessels.

Scientific Assembly.

The 45th Scientific Assembly of the Interstate Postgraduate Medical Association will be held at the Pittsburgh Hilton Hotel, Pittsburgh, October 31st through November 3rd. This is co-sponsored by the Pennsylvania Academy of General Practice and the Alleghany County Medical Society.

An outstanding program has been prepared and this may be secured by writing the Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wisconsin. The Assembly has been approved for a maximum of 16½ hours of Category I credit by the American Academy of General Practice.

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Obituaries . . . .

Dr. William Daniel Prince,

Prominent physician of Stony Creek, died June 22nd. He was eighty-eight years of age and graduated in medicine from the University of Virginia in 1895. Dr. Prince not only practiced medicine but served as County Court Judge. In 1932 he was appointed as the first trial justice of Sussex County and served until 1958 when he retired. Dr. Prince was also a former member of the House of Delegates. He found time to found the Bank of Southside Virginia and to serve as master of his Masonic Lodge several times.

Dr. Prince was a 50-Year Member of The Medical Society of Virginia, having joined in 1899.

His wife, five sons and a daughter survive him.

Dr. Hugh Johnson Hagan, Sr.,

Well-known physician of Roanoke, died June 16th. He was seventy-one years of age. Dr. Hagan received his medical education from Johns Hopkins Medical School, graduating in 1914. He was a past president of the Roanoke Academy of Medicine and had been a member of The Medical Society of Virginia for forty-five years. Dr. Hagan was instrumental in founding the Roanoke Life Saving Crew and Burrell Memorial Hospital.

His wife and three sons survive him. Two sons are Drs. Hugh Hagan, Jr., and Robert C. Hagan, both practicing in Roanoke.

Dr. Alfred Chambers Ray, Jr.,

Ashland, died June 24th, at the age of fifty-six. He graduated in medicine from the University of Virginia in 1930. In 1936 he became house physician of Randolph-Macon College, a position which was held by his father. Dr. Ray served as a Major in World War II. He had been a member of The Medical Society of Virginia for twenty-nine years.

His wife and a son survive him. A brother is Dr. Edward S. Ray, Richmond.

Dr. Gilligan.

It is with sorrow that we record the untimely and sudden death of Dr. John Henry Gilligan on April 29, 1960, at the age of 55 years.

Dr. Gilligan was born August 22, 1904, in Pittston, Pennsylvania. He received his pre-medical education at Canisus College, Buffalo, New York, from 1921-1924. Subsequently he attended Georgetown Medical School from which institution he received his M.D. degree in the class of 1928. In 1929, after a year of internship at St. Mary's Hospital, Rochester, New York, he settled down to the general practice of medicine in Arlington, Virginia. In 1940 he accepted a residency in otolaryngology at Episcopal Eye, Ear and Throat Hospital, Washington, D. C., thereafter confining his practice to that specialty, and qualifying as diplomate of the American Board of Otolaryngology. From 1945 to 1946 he served a fellowship in Pathology at Georgetown School of Medicine under the tutelage of Dr. Eugene Whitmore. As further evidence of his studious nature and intellectual pursuit, in 1955 at the age of 50 years he entered a two year residency in ophthalmology at D. C. General Hospital, Washington. From then until his death he combined the practice of ophthalmology and otolaryngology.

Dr. Gilligan was a member of the American Medical Association, The Medical Society of Virginia, and the American Academy of Ophthalmology and Otolaryngology. He was extremely active in the Arlington County Medical Society, having at one time or another held with distinction every office in the Society and served on practically every committee. He was elected president of the Arlington County Medical Society in 1932 and again in 1945. When Arlington Hospital was founded, Dr. Gilligan played a leading role in the organizing of the medical staff and in formulating policy pertaining to the operation of the governing staff of which he was a member until his death.

Dr. Gilligan was a man who was highly respected by his professional associates, a devoted physician to his patients and he likewise was beloved by these patients for the many sacrifices he made for them in the giving of his energies and talents. He will be missed by his many friends who knew his genuine and sterling character, his quick wit, and his kindness and interest in his fellow man.

THEREFORE, BE IT RESOLVED by the Arlington County Medical Society that we extend our sympathy to his bereaved widow and his two sons.

BE IT FURTHER RESOLVED that these resolutions become a part of the minutes of the Arlington County Medical Society and a copy sent to his family.

JOHN T. HAZEL, M.D.
HENRY L. BASTIEN, M.D.

Dr. Glasser.

Robert Daniel Glasser, aged 73, died on the evening of May 21, 1960, after an extended courageous hattle with a failing heart. With his passing the Society and medical community have lost a revered and respected member. His kind and sympathetic ministrations to the sick and needy for almost half a century, leaves many a void throughout the community in all walks of life, who put their complete trust in his hands for many, many years.

Dr. Glasser was a resident of Norfolk for sixty odd years. His early schooling was accomplished in the local public schools and the Norfolk Academy. He received academic training at Washington and Lee University and graduated in Medicine in 1912 at the Medical College of Virginia. After internship and residency at St. Vincent De Paul Hospital he opened an office in the General Practice of Medicine in Norfolk. For many years he was associated with the Gynecological Service at De Paul Hospital, retiring from activity in 1950, after having served as Chief for eighteen years. He was president of the staff of De Paul Hospital in 1942. In addition to membership in this Society, he held memberships in the Virginia State Medical Society, American Medical Association, International College of Surgeons, and the Southeastern Surgical Society.

Robert Glasser, in addition to being a fine doctor, skilled by long years of experience and study, with superior surgical ability and judgment included, devoted many years of effort to other than medical endeavors. He served many years as Chairman of The Board of Directors of Beth-El Temple. He held memberships in many fraternal and cultural organizations including Masonry. In 1946 he was president of the Torch Club of Norfolk. In his more vigorous years no task was too small or too large for his ever-willing, meticulous, and industrious capabilities.

With the passing of Robert D. Glasser from our midst, we the members of the Norfolk County Medical Society, realize the loss of one of a fast fading group of practitioners of the art of medicine who held dear the fraternalism within the bonds of the profession; who were ever ready to lend a helping hand to his young fellow practitioners; who held service, understanding and kindly interest in his patients above the monetary gains of practice and finally who won and held the respect of his fellow man with dignity and stature befitting a Doctor.

Now, THEREFORE, BE IT RESOLVED that the Norfolk County Medical Society express its grief in the loss of its honored member, Robert Daniel Glasser.

BE IT FURTHER RESOLVED that a copy of this resolution be spread upon the minutes of this Society and that a copy be sent to the bereaved family.

HARRY M. FRIEDEN, *Chairman*
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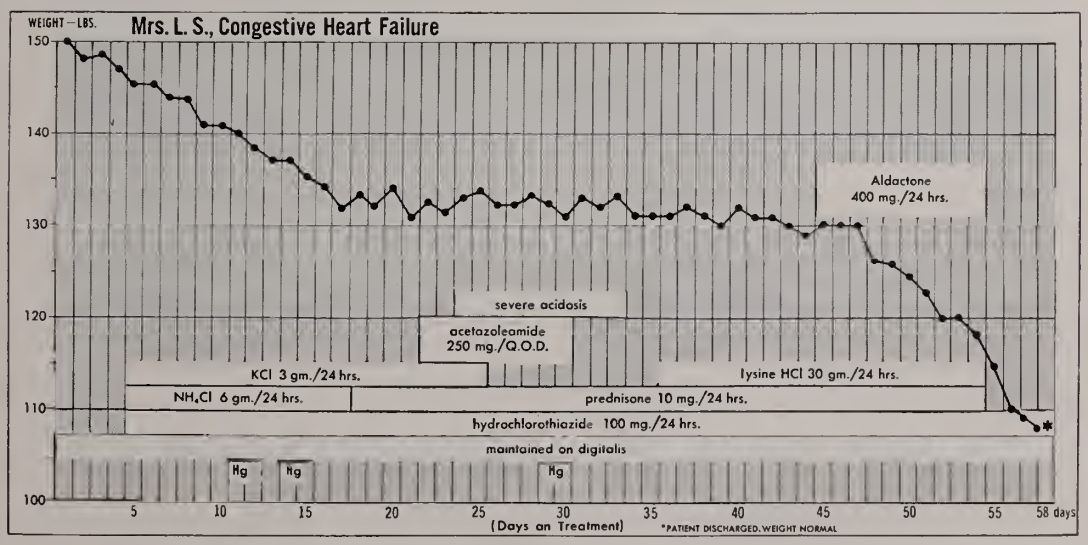

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1. Goodman, L.S. and Gilman, A.: The Pharmacological Basis of Therapeutics, 2nd Ed., Macmillan & Co., New York (1955).

2. Roberts, E.: Four Year Evaluation of an Antihypertensive Agent, J. Am. Med. Women's Assn. *13*:349 (1958).

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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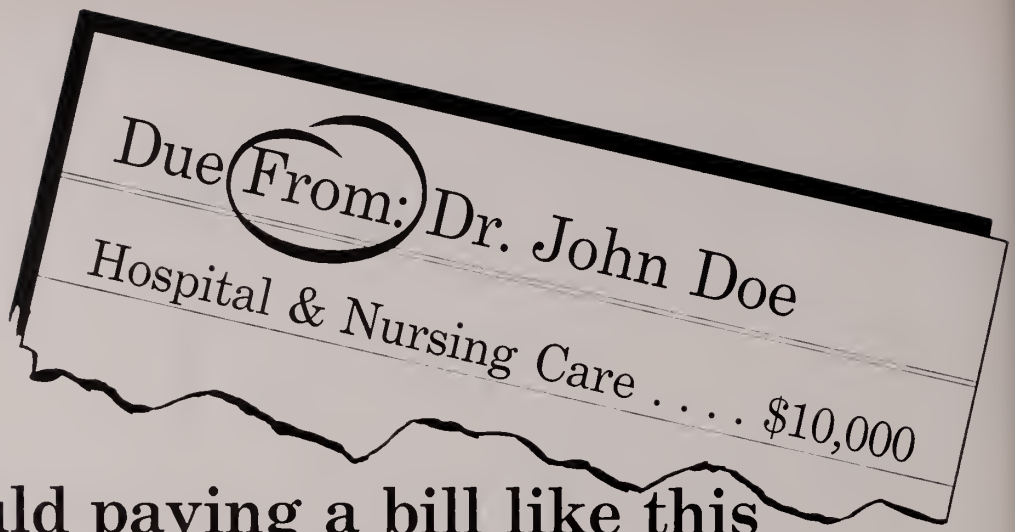

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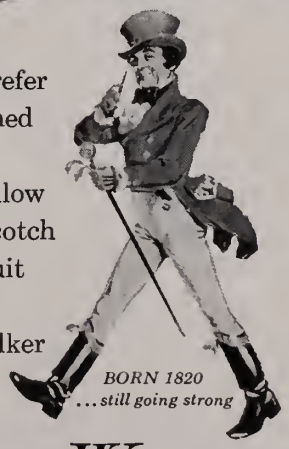

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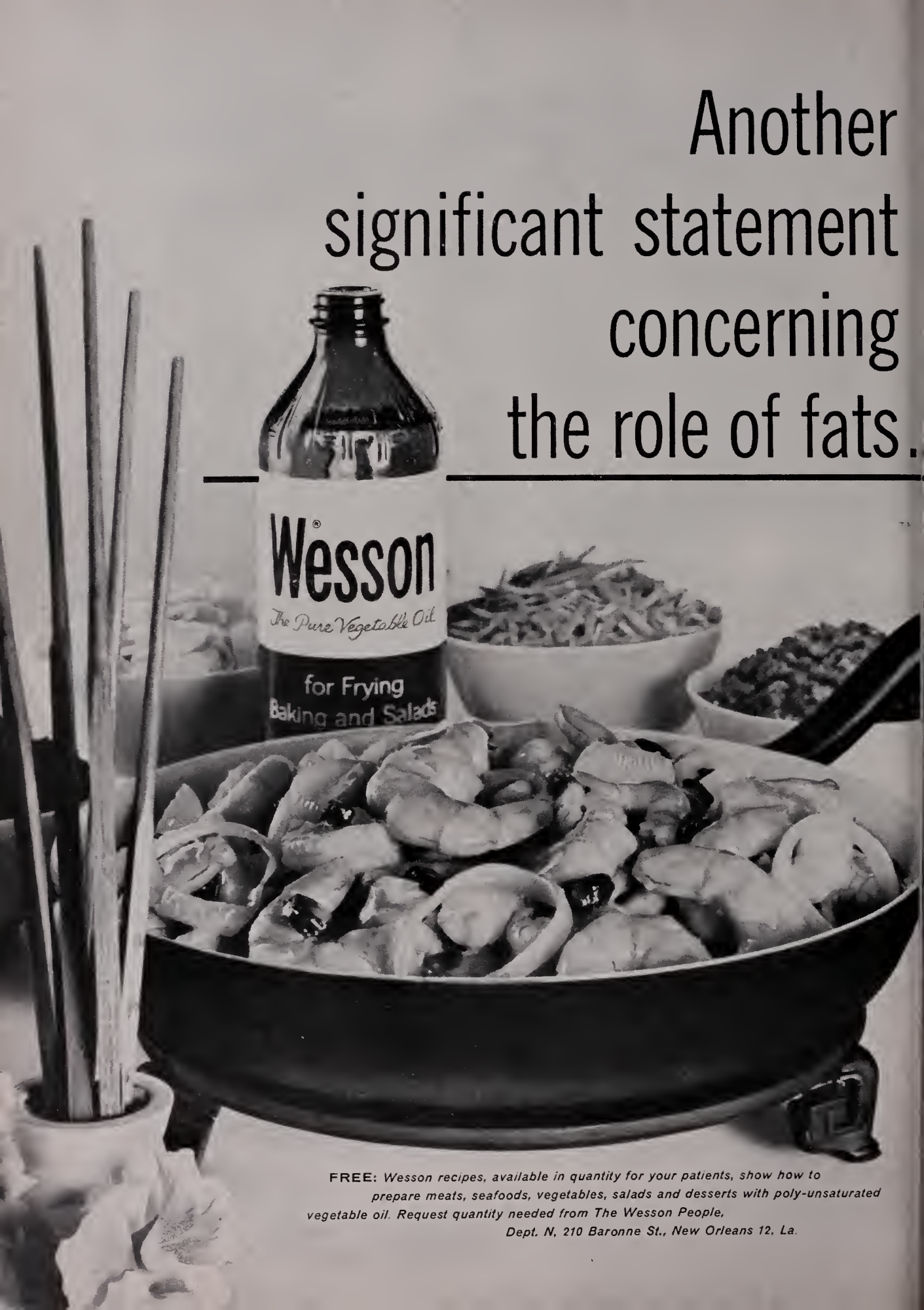

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Dietary Linoleic Acid and Linoleate—*Effects in Diabetic and Nondiabetic Subjects with and without Vascular Disease*

A paper by Laurance W. Kinsell, M.D., et al., excerpted from Diabetes—The Journal of the American Diabetes Association, May-June 1959

"*Linoleic acid as the major 'hypocholesterolemic agent' in vegetable fats.* The question has been raised as to the mechanism of lowering of the plasma lipids by a variety of vegetable fats. Among the entities present in or absent from vegetable fat which have been considered are: (a) the absence of cholesterol; (b) the presence of certain vegetable sterols; (c) the presence of certain vegetable phospholipids; (d) the nature of one or more of the fatty acids present; (e) the presence of trace materials.

in the diet

The absence of cholesterol has been excluded as a major factor.[5a] Phospholipids, if they contain a sufficient quantity of unsaturated fatty acids may produce a striking reduction. In our experience thus far saturated phospholipids fail to produce such an effect.[7]

Beveridge and his associates believe that vegetable sterols, particularly beta-sitosterol, are responsible to a significant degree for the cholesterol-lowering effect.[8] In our experience the vegetable sterols have a relatively weak and unpredictable effect of this sort.

Since the fatty acids of animal fats are predominantly saturated, and the fatty acids of most vegetable fats are predominantly polyunsaturated, with linoleic acid as the major component of the vegetable fats which lower cholesterol and other lipids, the question arises whether linoleic acid per se is capable of lowering plasma lipids. As reported previously[7] this is indeed the case. In a recent study in a young male with peripheral atherosclerosis in association with elevation of plasma cholesterol and of total lipids, ethyl linoleate produced a greater fall in the plasma lipid levels than had moderate amounts of natural sources of unsaturated fat. Linoleic acid, therefore, appears to be the most important single lipid-lowering component of vegetable fat.

* * *

Significantly higher levels of cholesterol were observed during oleate administration than during administration of equal amounts of linoleate. The relatively low cholesterol values during the second oleate period may have been related to linoleate stored in fat depots. The fatty acid composition of the cholesterol esters reflected the fat which was fed, i.e., the mono-enoic† acid content averaged more than 40 per cent during oleate feeding and less than 20 per cent during linoleate ingestion. Essentially, a mirror image of this resulted during linoleate feeding, at which time di-enoic acid predominated.

* * *

The data presented in this paper appear to establish that linoleic acid administered either as purified ethyl ester or as naturally occurring fat, in sufficient quantity, in properly constructed diets, will reduce plasma lipids to normal levels. The amount of linoleic acid required appears to bear a direct relationship to the amount of saturated fat included in the diet. Linoleic acid requirement may also bear a significant relationship to the amount of atherosclerosis present.

The transition from evaluation of the effect of dietary entities upon plasma lipids, to the evaluation of the effect of such materials upon vascular disease is difficult. However, such evaluation is not impossible. The requisites are adequate measuring sticks and well-controlled studies of sufficient duration. The duration of observation of effects of unsaturated fat in diabetic and nondiabetic patients with vascular disease is in no instance more than five years, and in the majority of instances, less than three. Our present impression is that improvement has occurred in some patients with atherosclerosis and with diabetic retinal and renal disease which was more than we would have anticipated in terms of the natural course of the disease. However, since it is well known that major fluctuations in these diseases can occur in individuals receiving no treatment, we believe it is appropriate at this time to say that no untoward effects appear to result when one prescribes diets containing large amounts of unsaturated fat for patients with such diseases, and it is not impossible that beneficial effects may be associated with such diets."

* * *

5a Kinsell, L.W., Partridge, J. W., Boling, L., Margen, S., and Michaels, G.D.: Dietary modification of serum cholesterol and phospholipid levels. J. Clin. Endocrinol and Met. 12:909, 1952.

7 Kinsell, L. W., Friskey, R., Splitter, S., Michaels, G. D.: Essential fatty acids, lipid metabolism, and atherosclerosis. Lancet 1:334, 1958.

8 Beveridge, J.M., Connell, W.F., Firstbrook, J. B., Mayer, G.A., and Wolfe, M.J.: Effects of certain vegetable and animal fats on plasma lipids of humans. J. Nutrition 56:311, 1955.

† Mono-enoic (mono-unsaturated) acid is presumably synonymous under these conditions with oleic acid and di-enoic (di-unsaturated) acid with linoleic acid

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Cartoon idea by pharmacist Emil Magdalener

Many of you may have seen a recent cartoon depicting a midnight scene in front of a pharmacy. A woman is pounding on the door and the pharmacist is leaning out the window of his apartment over the store. "Open up," shouts the woman. "My husband is sick and I need a stamp so I can send this prescription to the mail order house."

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Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. Antibiotic Med. & Clin. Ther. 6:108 (Feb.) 1959.

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Protected by U. S. Patent Numbers: 2,661,372 and 2,661,373

1. Rubin, W., and Anderson, J. R.: Angiology 9:256, 1958.

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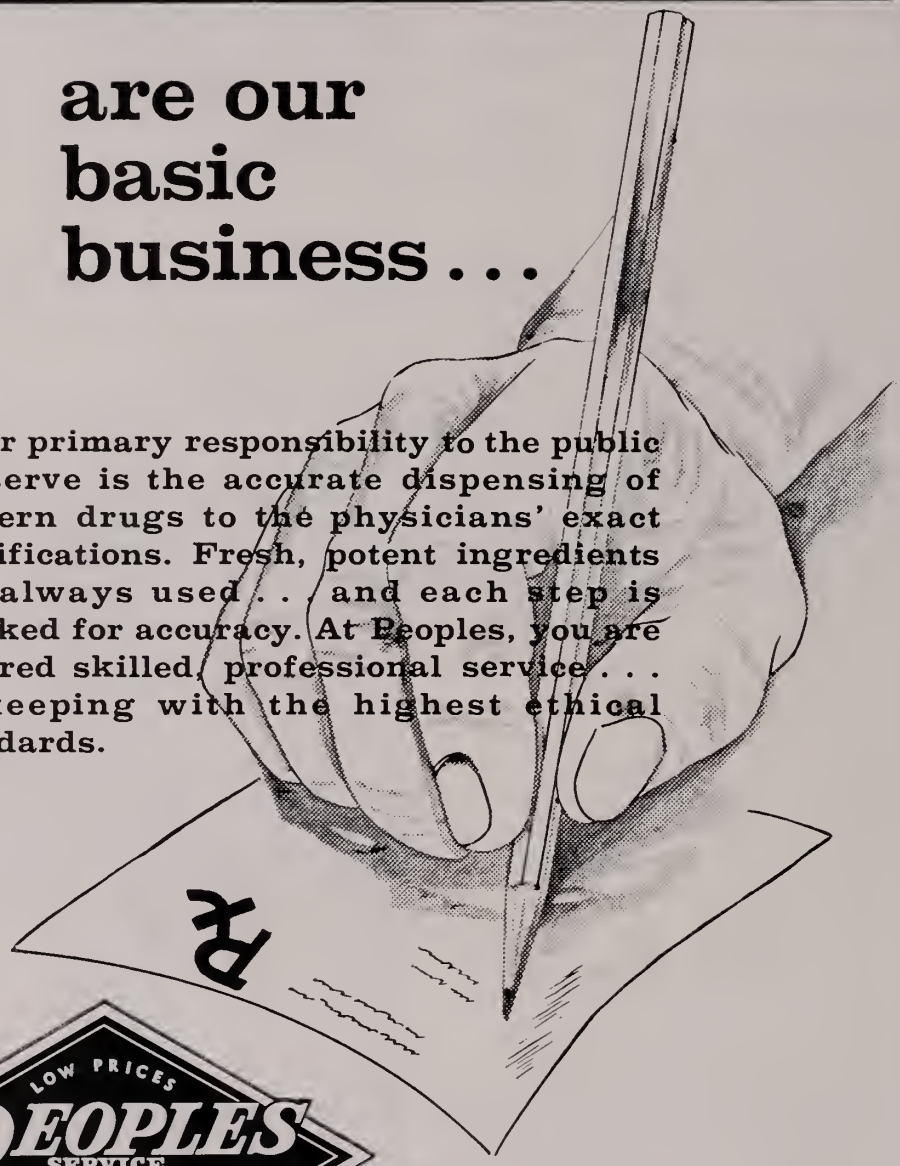

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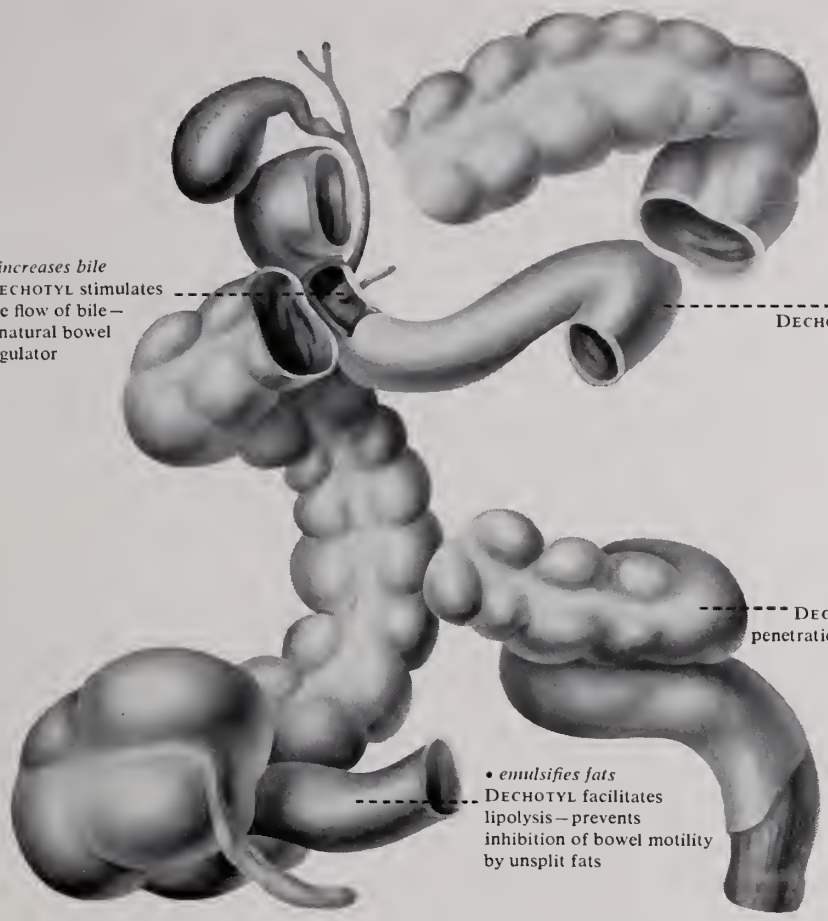

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PROGRAM ISSUE

SEPTEMBER, 1960

VIRTUALLY NO DECREASE IN STAPHYLOCOCCAL SENSITIVITY

OVER AN 8-YEAR SPAN . . . TO

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

An outstanding and frequently reported characteristic of CHLOROMYCETIN[1-8] "...is the fact that the very great majority of the so-called resistant staphylococci are susceptible to its action."[1] In describing their study, Rebhan and Edwards[2] state that "...only a small percentage of strains have shown resistance..." to CHLOROMYCETIN, despite steadily increasing use of the drug over the years.

Fisher[3] observes: "The over-all average incidence of resistance, for the 31,779 strains [of staphylococci] through nine years was about 9%." Finland[4] reports that, while the proportion of strains resistant to several newer antibiotics has risen to between 10 and 30 per cent, such resistance to CHLOROMYCETIN "...has been rare even where this agent has been used extensively." Numerous other investigators concur in these findings.[5-8]

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CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

References: (1) Welch, H., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 1. (2) Rebhan, A. W., & Edwards, H. E.: *Canad. M. A. J.* **82**:513, 1960. (3) Fisher, M. W.: *Arch. Int. Med.* **105**:413, 1960. (4) Finland, M., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 187. (5) Bercovitz, Z. T.: *Geriatrics* **15**:164, 1960. (6) Glas, W. W., & Britt, E. M.: Management of Hospital Injections, in Symposium on Antibacterial Therapy, Michigan & Wayne County Acad. Gen. Pract., Detroit, September 12, 1959, p. 7. (7) Staphylococcal Infections in Pediatrics, Scientific Exhibit, Commission on Professional and Hospital Activities, 108th Ann. Meet., A. M. A., Atlantic City, June 8-12, 1959. (8) Robinson, H. M., Jr.; Robinson, R. C. V., & Raskin, J.: *Postgrad. Med.* **27**:522, 1960.

N VITRO SENSITIVITY OF PYOGENIC STRAINS OF STAPHYLOCOCCI TO CHLOROMYCETIN OVER A PERIOD OF EIGHT YEARS*

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*Adapted from Rebhan & Edwards.[2]

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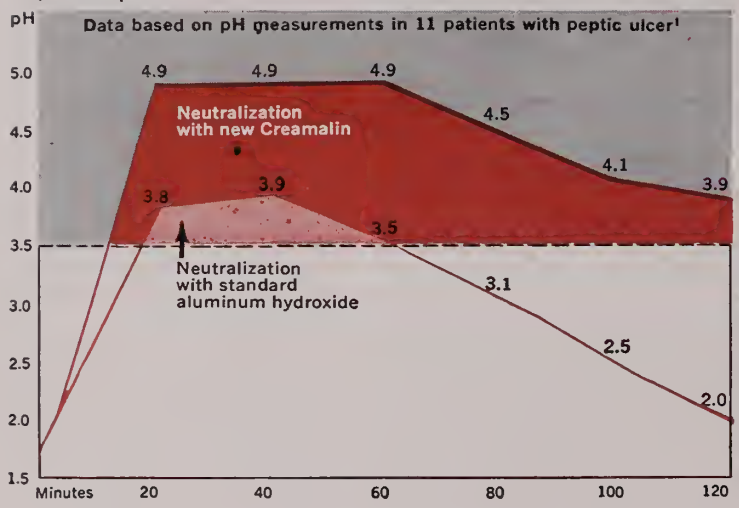

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1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: J. Am. Pharm. A. (Scient. Ed.) 48:384, July, 1959.

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1. Swartz, H., "Ephoxamine in the Symptomatic Treatment of Bronchial Asthma," Current Therapeutic Research, 1:93:1959. 2. Flothow, M. W., "Ephedrine and Antihistamine Combined Treatment in Allergies," J. of Med. Soc. of N.J. 56:733:1959. 3. Swartz, H., "Ephoxamine as Maintenance Drug Therapy in Chronic Bronchial Asthma: a Preliminary Report," Applied Therapeutics 1:3:1960.

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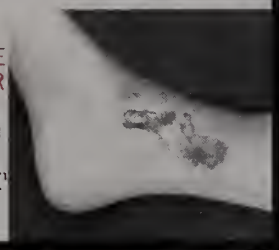

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Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

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1. Boger, W. P.; Strickland, C. S., and Gylfe, J. M.: *Antibiotic Med. & Clin. Ther.* 3:378 (Nov.) 1956. 2. Boger, W. P.: In: *Antibiotics Annual* 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 48. 3. Sheth, U. K.; Kulkarni, B. S., and Kamath, P. G.: *Antibiotic Med. & Clin. Ther.* 5:604 (Oct.) 1958. 4. Anderson, P. C., and Wissinger, H. A.: *U. S. Armed Forces M. J.* 10:1051 (Sept.) 1959.

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WHEN ULCEROGENIC FACTORS KEEP ON WORKING...

REMEMBER THIS: SO DOES ENARAX

Think of your patient with peptic ulcer—or with gastrointestinal dysfunction—on a typical day.

Think of the anxieties, the tensions.

Think, too, of the night: the state of his stomach emptied of food.

Disturbing?

Then think of ENARAX. For ENARAX was formulated to help you control precisely this clinical picture. ENARAX provides oxyphencyclimine, the inherently long-acting anticholinergic (up to 9 hours of actual achlorhydria[1]) . . . plus Atarax, the tranquilizer that doesn't stimulate gastric secretion.

Thus, with b.i.d. dosage, you provide continuous antisecretory/antispasmodic action and safely alleviate anxiety . . . with these results: ENARAX has been proved effective in 92% of G.I. patients.[2-4]

When ulcerogenic factors seem to work against you, let ENARAX work for you.

ENARAX® B.I.D.

(10 MG. OXYPHENCYCLIMINE PLUS 25 MG. ATARAX®†) A SENTRY FOR THE G.I. TRACT

dosage: Begin with one-half tablet b.i.d.—preferably in the morning and before retiring. Increase dosage to one tablet b.i.d. if necessary, and adjust maintenance dose according to therapeutic response. Use with caution in patients with prostatic hypertrophy and only with ophthalmological supervision in glaucoma.

supplied: In bottles of 60 black-and-white scored tablets. Prescription only.

References: 1. Steigmann, F., et al.: Am. J. Gastroenterol. 33:109 (Jan.) 1960. 2. Hock, C. W.: to be published. 3. Leming, B. H., Jr.: Clin. Med. 6:423 (Mar.) 1959. 4. Data in Roerig Medical Department Files.

†brand of hydroxyzine

FOR HEMATOPOIETIC STIMULATION WHERE OCCULT BLEEDING IS PRESENT

HEPTUNA® PLUS

THE COMPLETE ANEMIA THERAPY

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Science for the World's Well-Being ™

alert tranquillity

a new, improved, more potent relaxant for anxiety and tension

- effective in half the dosage required with meprobamate
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- does not impair intellect, skilled performance, or normal behavior
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alert tranquillity

Striatran®

EMYLCAMATE

- a familiar spectrum of antianxiety and muscle-relaxant activity
- no new or unusual effects—such as ataxia or excessive weight gain
- may be used in full therapeutic dosage even in geriatric or debilitated patients
- no cumulative effect
- simple, uncomplicated dosage, providing a wide margin of safety for office use

STRIATRAN is indicated in anxiety and tension, occurring alone or in association with a variety of clinical conditions.

Adult Dosage: One tablet three times daily, preferably just before meals. In insomnia due to emotional tension, an additional tablet at bedtime usually affords sufficient relaxation to permit natural sleep.

Supply: 200 mg. tablets, coated pink, bottles of 100.

While no absolute contraindications have been found for Striatran in full recommended dosage, the usual precautions and observations for new drugs are advised.

For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.

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now—for more comprehensive control of

'pain & spasm'

INDICATIONS

HEAD: temporomandibular muscle spasm • NECK: acute torticollis, osteoarthritis of cervical spine with spasm of cervical muscles, whiplash injury • TRUNK AND CHEST: costochondritis, intercostal myositis, xiphodynia • BACK: acute and chronic lumbar strains and sprains, acute low back pain (unspecified), acute lumbar arthritis and traumatic injury, compression fracture, herniated intervertebral disc, post-disc syndrome, strained muscle(s) • EXTREMITIES: acute hip injury with muscle spasm, ankle sprain, arthritis (as of foot or knee), blow to shin followed by muscle spasm, bursitis, spasm or strain of muscle or muscle group, old fracture with recurrent spasm, Pellegrini-Stieda disease, tenosynovitis with associated pain and spasm.

—pain due to or associated with —spasm of skeletal muscle

a new muscle relaxant-analgesic

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INDICATIONS: Robaxisal is indicated when analgesic and as relaxant action is desired in the treatment of skeletal muscle spasm and severe concurrent pain. Typical conditions are disorders of the back, whiplash and other traumatic injuries, myositis, and pain and spasm associated with arthritis.

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[1] Clinical reports in files of A. H. Robins Co., Inc., from J. Allen Madison, Va.; B. Bilow, New York, N. Y.; B. Decker, Richmond, Va.; C. Freeman, Jr., Augusta, Ga.; R. B. Corson, New York, N. Y.; J. E. Hollblad, Schenectady, N. Y.; L. Levy, New York, N. Y.; N. LoBue, Chicago, Ill.; H. Nachman, Richmond, Va.; A. Pennexer, Los Angeles, Cal.; E. Rogers, Brooklyn, N. Y.; K. H. Strong, Fairfield, Ia.

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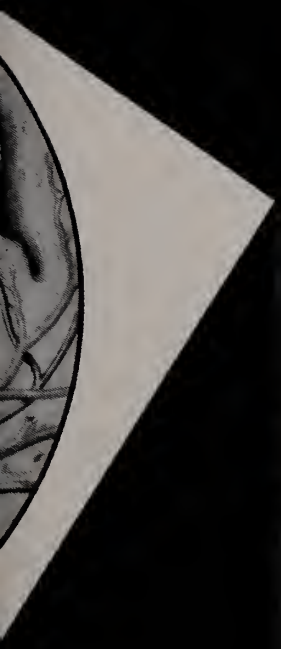

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ASCORBIC ACID (vitamin C) . . . . . 100 mg.

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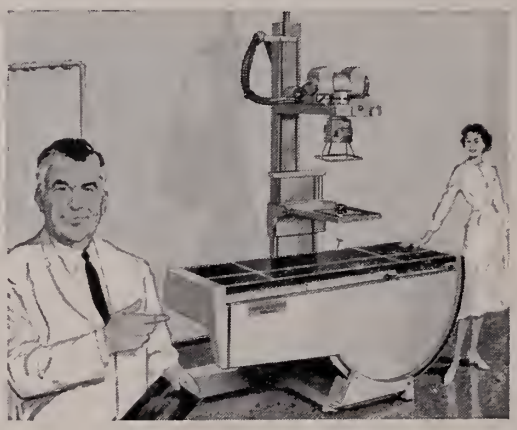

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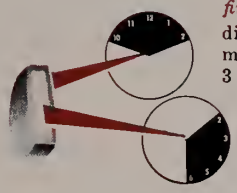
Reaches all nasal and paranasal membranes, huh?"

...and for humans with RUNNING NOSES...

You can't reach the entire nasal and paranasal mucosa by putting medication in a man's nostrils — any more than you could by trying to pour it down an elephant's trunk. TRIAMINIC, by contrast, reaches *all* respiratory membranes *systemically* to provide more effective, longer-lasting relief. And TRIAMINIC avoids topical medication hazards such as ciliary inhibition, rebound congestion, and "nose drop addiction."

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient

Each timed-release Triaminic Juvelet® provides:
½ the formulation of the Triaminic Tablet.
Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides:
¼ the formulation of the Triaminic Tablet.
Dosage (to be administered every 3 or 4 hours):
Adults—1 or 2 tsp.; *Children 6 to 12*—1 tsp.;
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TRIAMINIC®

timed-release tablets, juvelets, and syrup

STOP *running noses* *and open stuffed noses orally*

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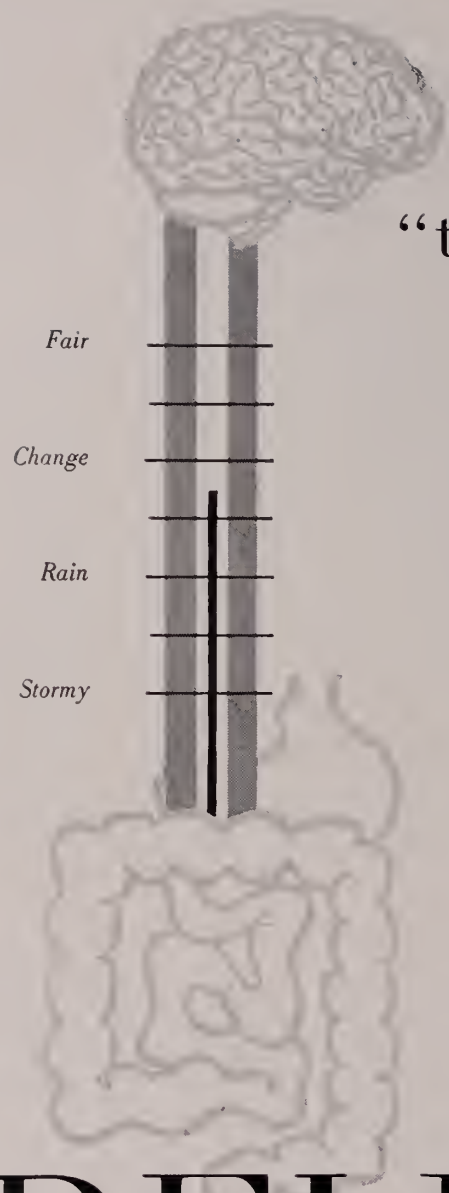

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Belbarb soothes the agitated mind and calms the G-I spasm through the central effect of phenobarbital and the synergistic action of fixed proportions of natural belladonna alkaloids on the gastrointestinal tract.

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Hydroflumethiazide • Reserpine • Protoveratrine A

An integrated multi-therapeutic antihypertensive, that combines in balanced proportions three clinically proven antihypertensives.

In each **SALUTENSIN** Tablet:

Saluron® (hydroflumethiazide)—a saluretic-antihypertensive ..... 50 mg.

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Protoveratrine A—a centrally mediated vasorelaxant ..... 0.2 mg.

Comprehensive information on dosage and precautions in official package circular or available on request.

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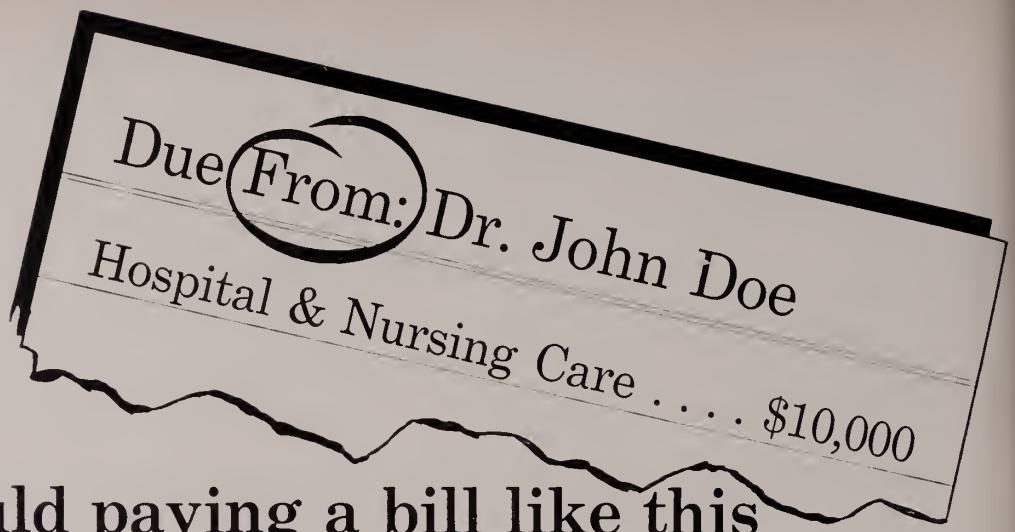

Doctor . . .

• What would paying a bill like this do to your personal finances?

• And what about additional bills for your continuing Office Expenses — if YOU had been the patient?

AS A PRACTICING PHYSICIAN . . .

. . . knowing that today's hospital confinements mean BIG bills, you should be the first to own "catastrophic" hospital-nurse insurance for yourself and your family's *assured* protection.

PLAN 1

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PAYS 100% of Hospital Room & Board Charges and Hospital Miscellaneous Expense PLUS 75% of in-hospital Nurse Fees — after the selected Deductible Amount has been applied — up to a $10,000 overall Limit of Payment for expenses incurred within 3 years of any one accident or sickness. Applies to each insured Member, Spouse or Dependent Child.

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New Rautrax-N results in prompt lowering of blood pressure.[1] Rautrax-N, a new and carefully developed antihypertensive-diuretic preparation, provides improved therapeutic action[1] plus enhanced diuretic safety for all degrees of essential hypertension. A combination of Raudixin and Naturetin, Rautrax-N facilitates the management of hypertension when rauwolfia alone proves inadequate, or when prolonged treatment, with or without associated edema, is indicated.

Naturetin, the diuretic of choice, also possesses marked antihypertensive properties, thus complementing the known antihypertensive action of Raudixin. In this way a lower dose of each component in Rautrax-N controls hypertension effectively with few side effects and greater margin of safety.[1-16]

Other advantages are a balanced electrolyte pattern[1-16] and the maintenance of a favorable urinary sodium-potassium excretion ratio.[2-16] Clinical studies[1-5] have shown that the diuretic component of Rautrax-N—Naturetin—has only a slight effect on serum potassium. The supplemental potassium chloride provides additional protection against potassium depletion which may occur during long term therapy.

Rautrax-N may be used alone or in conjunction with other antihypertensive drugs, such as ganglionic blocking agents, veratrum or hydralazine, when such regimens are needed in the occasionally difficult patient.

Supply: Rautrax-N—capsule-shaped tablets providing 50 mg. Raudixin (Squibb Rauwolfia Serpentina Whole Root) and 4 mg. Naturetin (Squibb Benzydroflumethiazide), with 400 mg. potassium chloride.

Dosage: Initially-1 to 4 tablets daily after meals. Maintenance-1 or 2 tablets daily after meals; maintenance dosage may range from 1 to 4 tablets daily. For complete instructions and precautions see package insert. Literature available on request.

References: 1. Reports to the Squibb Institute, 1960. 2. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 3. Stenberg, E. S., Jr.; Benedetti, A., and Forsham, P. H.: Op. cit. 5:46 (Feb.) 1960. 4. Fuchs, M.; Moyer, J. H., and Newman, B. E.: Op. cit. 5:55 (Feb.) 1960. 5. Marriott, H. J. L., and Schamroth, L.: Op. cit. 5:14 (Feb.) 1960. 6. Ira, G. H., Jr.; Shaw, D. M., and Bogdonoff, M. D.: North Carolina M. J. 21:19 (Jan.) 1960. 7. Cohen, B. M.: M. Times, to be published. 8. Breneman, G. M. and Keyes, J. W.: Henry Ford Hosp. M. Bull. 7:281 (Dec.) 1959. 9. Forsham, P. H.: Squibb Clin. Res. Notes 2:5 (Dec.) 1959. 10. Larson, E.: Op. cit. 2:10 (Dec.) 1959. 11. Kirkendall, W. M.: Op. cit. 2:11 (Dec.) 1959. 12. Yu, P. N.: Op. cit. 2:12 (Dec.) 1959. 13. Weiss, S.; Weiss, J., and Weiss, B.: Op. cit. 2:13 (Dec.) 1959. 14. Moser, M.: Op. cit. 2:13 (Dec.) 1959. 15. Kahn, A., and Grenblatt, I. J.: Op. cit. 2:15 (Dec.) 1959. 16. Grollman, A.: Monographs on Therapy 5:1 (Feb.) 1960.

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Use of pHisoHex for washing the skin augments any other therapy for acne — brings better results. Now, pHisoAc Cream, a new acne remedy for topical application, suppresses and masks lesions — dries, peels and degerms the skin. Together, pHisoHex and pHisoAc provide basic complementary topical therapy for acne.

pHisoHex, antibacterial detergent with 3 per cent hexachlorophene, removes soil and oil better than soap — provides **continuous** degerming action when used often. pHisoHex is nonalkaline, nonirritating and hypoallergenic.

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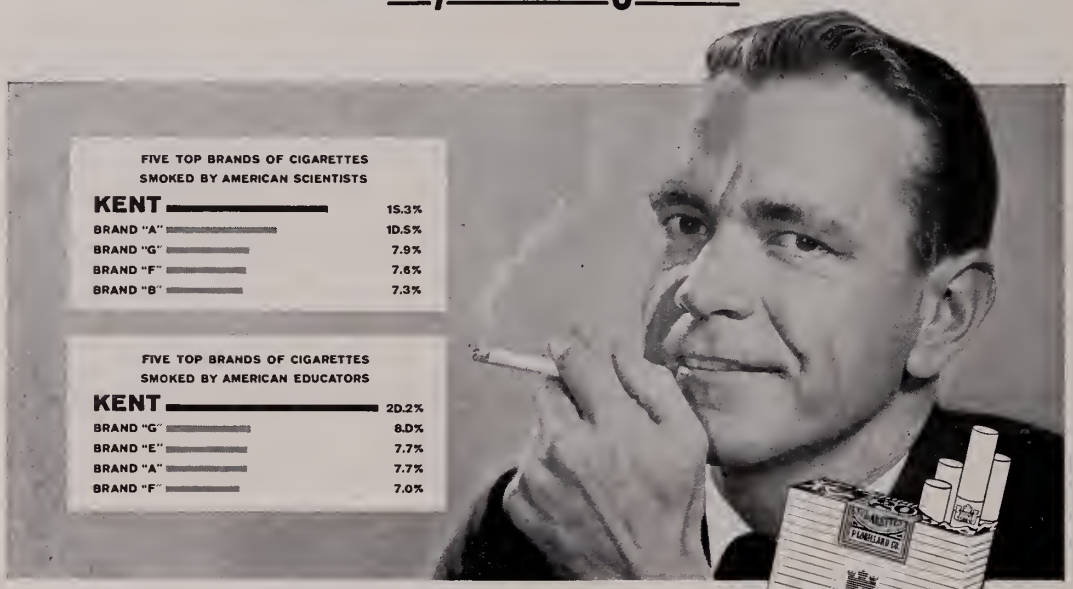

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Controls congestion
with Triaminic,[1,2,3] the leading oral nasal decongestant.

Controls aches and fever
with well-tolerated APAP, non-addictive analgetic[4] and excellent antipyretic.[5]

Each TUSSAGESIC Tablet provides:

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(phenylpropanolamine HCl .....25 mg.
pheniramine maleate .....12.5 mg.
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Dormethan
(brand of dextromethorphan HBr)..... 30 mg.
Terpin hydrate .....180 mg.
APAP (N-acetyl-p-aminophenol) .....325 mg.

References: 1. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Bonica, J. J.: in Drugs of Choice, Mosby, St. Louis, 1958, p. 272. 5. Dascomb, H. E.: in Current Therapy, Saunders, Phila., 1958, p.78. 6. Bickerman, H. A.: in Drugs of Choice, Mosby, St. Louis, 1958, p.547.

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Liquefies tenacious mucus
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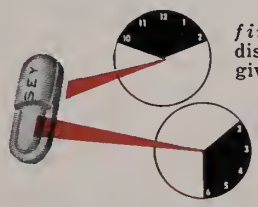

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TUSSAGESIC SUSPENSION provides palatability and convenience which make it especially attractive to children and other patients who prefer liquid medication.

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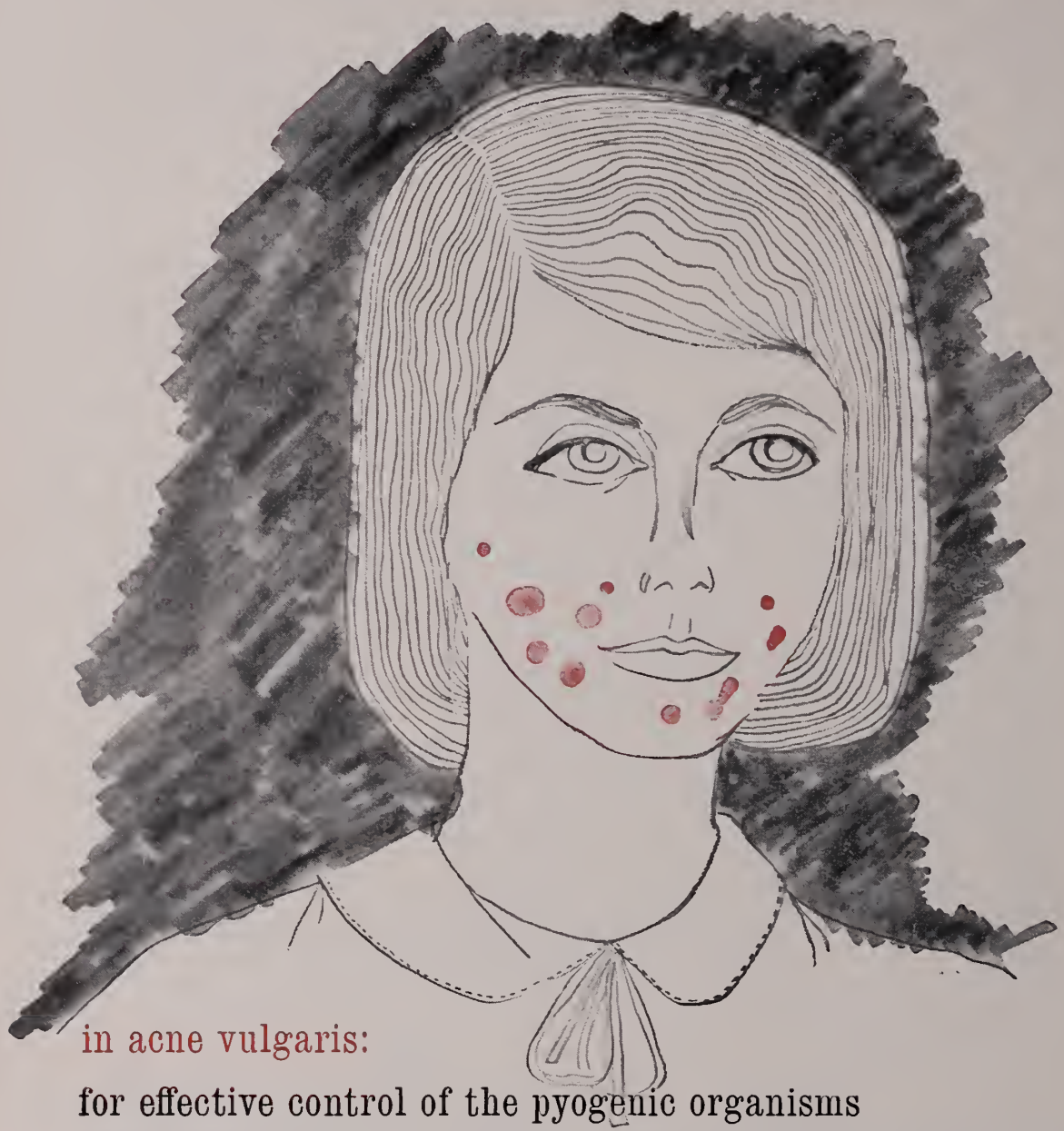
preventable tragedy:

permanent pitting and scarring in acne



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for effective control of the pyogenic organisms
often responsible for permanent pitted and hypertrophic scars[1]

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The Original Tetracycline Phosphate Complex

broad spectrum efficacy with unmatched record of safety and tolerance

Supply: TETREX Capsules—tetracycline phosphate complex—each equivalent to 250 mg. tetracycline HCl activity. Bottles of 16 and 100. Capsules—100 mg.—bottles of 25 and 100. Information on convenient dosage schedule available on request.

1. Rein, C. R., and Fleischmajer, R.: The efficacy of tetracycline phosphate complex (TETREX) in dermatological therapy. Antibiotic Med. & Clin. Ther. 4:422 (July) 1957.

BRISTOL™ BRISTOL LABORATORIES
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to more completely control the symptoms of the common cold

Contramal-CP

For your patients suffering from colds, respiratory disorders and allergic states, you will find CONTRAMAL-CP an orally effective DECONGESTANT, ANALGESIC, ANTIPYRETIC and ANTIHISTAMINIC. The inclusion of Tristamine* and Phenylephrine Hydrochloride with the basic CONTRAMAL formula is designed to provide . . . MORE complete control of the common cold!

**Tristamine...(triple-Antihistamines) by Physicians Products Company contains Chlorpheniramine Maleate 1.25 mg., Phenyltoloxamine Citrate 6.25 mg., and Pyrilamine Maleate 12.5 mg.*

CONTRAMAL-CP . . . each orange capsule contains:

Acetyl-p-aminophenol	325 mg.
Salicylamide	225 mg.
Caffeine	30 mg.
Phenylephrine Hydrochloride	5 mg.
Tristamine*	20 mg.

Supplied—bottles 100 and 1000 capsules

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Prescribe V-Cillin K in scored tablets of 125 and 250 mg., or V-Cillin K, Pediatric, in 40 and 80-cc. bottles.

1. Griffith, R. S.: Comparison of Antibiotic Activity in Sera Following the Administration of Three Different Penicillins, Antibiotic Med. & Clin. Therapy, 7:No. 2 (February), 1960.

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The Virginia
MEDICAL
MONTHLY

September, 1960
Vol. 87, No. 9
Whole No. 1300

Guest Editorial . . . .

Hold Fast to That Which Is Good

THE SPECTACULAR ADVANCES of science and technology in the field of medicine during the past few decades present a story that is familiar to everyone.

In approximately the same period of time, the doctor seems to have lost much of the esteem and affection of the general public which gratefully accorded them to past generations of our profession.

Just how and why has this come about?

That the practice of medicine is better than "In The Good Old Days", and that results have improved enormously cannot be questioned. So, where can we look for the explanation? Has the current trend to emphasize the sciences at the expense of the humanities invaded the medical profession? These questions are more easily asked than answered.

Robert Louis Stevenson's eulogy and Ian MacLaren's heart warming "A Doctor of the Old School" present a picture of the doctor which we like to think is a true one and which the present generation can ill afford to forget.

The late Dr. John M. T. Finney liked to talk about "The Imponderables in Medicine", courage, the will to live, and faith, not only in the doctor but in some power that could come to the aid of both patient and doctor. We would all do well to recall more frequently the famous aphorism of Ambroise Pare, "I dressed him, God healed him."

The present generation of medical students and recent graduates must certainly be imbued with the sense of dedication to the relief of human suffering which has traditionally inspired our profession, or they would never have undertaken and persisted in a course of training which entailed from four to ten years of hard work.

It would seem that the inevitable attention to the acquisition of skills, and the accumulation of specific knowledge of disease and its treatment, has tended to make us lose sight of the fundamental purpose for which the training was undertaken. The role of the trusted guide, counsellor, and friend need not be lost just because the doctor of today has so much more to offer his patient than his grandfather had. Doctors as a rule—and the writer is no exception—fight shy of expressions which might be interpreted as "preaching", but it does not seem too much to suggest that the teachers in our medical schools, and those to whom young men come for advice and counsel, take the time and trouble to help them understand and appreciate the high ideals and responsibilities of our great profession.

"Whatsover things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue, and if there be any praise, think on these things." (Philippians 4:8)

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Cardiacs Can Work, Cardiacs Should Work

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The skills and knowledge possessed by the cardiac patient can be put to use and he can be returned to an active, productive life in most cases. This goal has been achieved with considerable success by the Cardiac Work Classification Unit.

THAT MOST MEN can return to their jobs after sustaining heart disease has become an established medical fact and has received increasingly wider acceptance by industry in recent years. This has been aided by Cardiac Work Classification Units which were established throughout the country to help in solving some of the problems that affect the employment of the person with heart or vascular disease.

The Cardiac Work Classification Unit in Philadelphia,[1] under the sponsorship of the Heart Association of Southeastern Pennsylvania and the Division of Adult Cardiovascular Diseases, Commonwealth of Pennsylvania, started in February, 1952.

The organization committee decided that such a unit would be most productive and useful if admissions were confined to persons that were employed or considered to be employable. A rapport with industry in and around Philadelphia was established for the referral of their workers with heart disease.

The Unit consists of a cardiologist, a vocational counselor, a medical social worker and a psychiatrist. The Unit's clinical sessions were held in the Heart Station of the Philadelphia General Hospital. The patients were interviewed individually by each member of the team. The cardiologist's examination included a detailed history, physical examination, electrocardiogram and orthodiagram. The vocational counselor's interview consisted of a desk audit to analyze the patient's job history and his present duties, including skill and physical requirements of the job. The patient's attitudes toward the physical, emotional and performance requirements of his present or last job were also elicited. The medical social worker interviewed the patient and available family members to obtain information regarding any economic, personal, or family problems. The social worker also noted the impact of cardiac illness on the patient's family and upon his social and recreational activities. The interview by the psychiatrist elicited information on the patient's basic personality type, outstanding defenses manifested, prevailing moods and, cooperativeness. The psychiatrist was also interested in the patient's understanding of his illness and his reaction to convalescence.

At the conclusion of the individual interviews the patients were discussed in a team conference, at which time each team member presented pertinent material, and free discussion followed. It must be stressed that the multi-discipline approach was practiced, and no recommendation was made individually before the group conference was held. Strict adherence to the policy of the team approach enabled all members of the team to gain experience and insight into the problems of the worker with heart disease, his resulting disability and its relationship to employability.

Of 616 persons who were evaluated by the Unit between February, 1952, and December, 1956, 446 (72.4%) were referred to the Unit by industry (industrial physicians, labor unions and personnel managers). This source of referral accounts for the fact that 531 (86.2%) of the patients were working full or part time or were on sick leave from full-time jobs at the time of initial evaluation. Ninety-seven (15.8%) patients were found to have no heart disease. This relatively low figure reflects good screening by the referring sources. The recommendations made to 519 cardiacs were that 474 (91.4%) return to full time work, with or without restrictions. In some instances the job could be modified to conform to the recommended restrictions, in others a change of job was accomplished.

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The Unit recommendations made to 331 patients with heart disease, who had one or more follow-up examinations, were that 301 (91%) could return to full time work. In this group, the number employed increased from 198 on initial examination to 255 on follow-up examination. This was the result of 52 patients returning to work from sick leave, and 25 patients who obtained employment after evaluation by the Unit (20 retired). Of the 77 patients found to be physically improved on follow-up evaluation, 58 (78%) were working; of the 201 patients found to be in the same physical condition, 156 (77%) were working; in the 53 cases who were found to be worse, 31 (60%) of whom were working, it was felt that the natural progression of the heart disease was responsible rather than the physical exertion of the job. The relationship of the diagnosis to the medical status on follow-up examination, comparing those patients who were working with those not working, showed that 56% of the patients with rheumatic heart disease, 65% of the patients with hypertensive heart disease, 49% of the patients with arteriosclerotic heart disease and 66% of the patients with coronary artery disease were improved or remained the same medically, while working. Eighteen (34%) of the 53 patients found to be worse on follow-up examination had rheumatic heart disease. Of these, six patients were in age group 21-34 years and ten patients were in age group 35-54 years. This discouraging prognosis, in a relatively young and productive age group, may be reversed by early diagnosis and more definitive treatment, particularly by the development and improvement in techniques in cardiac surgery.

The occupations on initial evaluation were compared to the occupations of 251 cardiac cases who were found to be working at the time of follow-up examination. That the employer need not lose the skill and experience of an employee who develops organic heart disease is shown by the fact that a high percentage of the patients remained in the same job category following evaluation by the Unit. A few cases were placed in jobs where the physical activity was less, but with greater responsibility. The greatest problems were encountered in the unskilled occupations which required great physical exertion and which might aggravate the cardiac condition of the patient. In these cases, the lack of job opportunities, or skill and training, compounded the problem.

Despite the optimistic picture, that in most instances, the cardiac can be returned to his former job with few or no restrictions; investigators have found in each series of cases studied a certain proportion of cardiacs who have not returned to work even though employable from the point of view of their heart disease. The experience of this Unit has corroborated the existence of this group of cardiacs who are not rehabilitated vocationally after the onset of heart disease. Despite the presence of heart disease in most of the group of patients evaluated by the Unit, 91% were told that they could return to work. Follow-up of this group early in the history of the Unit revealed that 28% of these patients did not follow the recommendations of the Unit.

In the coronary patient, just as the body's reactions may fail or be themselves a source of further difficulty (embolism, renal shutdown, shock, etc.) so may the social and psychological defenses miscarry or be maladaptive (prolonged dependence on relief, pathological denial of illness with refusal to abide by medical regime, etc.). The attitudes of the community, the employer, and the doctor, as well as the patient and his family, figure in the final re-integration of the cardiac into the life that illness forced him temporarily to leave. It is obvious that the evaluation of all these facets of a man's response to heart disease, from alteration in his T-waves to the changes in relationships with his son whose aspirations for college have been dimmed by his father's heart disease, is beyond the scope of one person or one specialist's ability. The Unit, composed of a medical worker, vocational counselor, psychiatrist and cardiologist, has attempted to render a composite picture of each cardiac patient by pooling the knowledge of each of its members to arrive at the broadest understanding possible of the impact of heart disease and the patient's struggle to rehabilitate himself.

One hundred and seventeen patients were selected for detailed analysis in an effort to determine the medical, vocational, social and psychiatric factors related to unsuccessful vocational adjustment of cardiac patients. Successful vocational adjustment (SVA) was defined as return to work without aggravation of heart disease. In the presence of cardiac symptoms on the job, the patient was placed in the group called SVA if it was judged that the symptoms were not being aggravated by the work performed, but would be appropriate to the patient's physical status even if he were not working. The patient was classified as unsuccessfully vocationally adjusted (UVA) when (a) the patient was not working though physically able or (b) the patient was not working

up to recommended levels, or (c) the patient was working significantly beyond the recommended level with aggravation of heart disease. Of this group, thirty-eight were found to be UVA, and seventy-nine were judged SVA.

Detailed investigation of the organic heart disease failed to reveal any significant differentiating characteristics between the SVA and the UVA group. Patients employed up to recommended levels were no less ill than those who did not rehabilitate successfully. Controlled for the degree of medical illness by comparing only patients matched for diagnosis and functional and therapeutic classification, our findings remained substantially the same. Neither the type nor the severity of disease accounted for the patient being UVA. This does not mean that the patient's physical status is unimportant in his vocational rehabilitation. It does mean that adequate physical capacity is not sufficient to ensure successful vocational adjustment. Analysis of the vocational backgrounds of the patients likewise failed to provide the necessary differentiating characteristics of the two groups under study. Neither educational background, skills, type of job, nor physical requirements of the job were responsible for the patient's UVA status.

Only when the social and emotional climate of these patients came under scrutiny did features emerge which could differentiate SVA from UVA. Unsuccessfully adjusted patients showed that they had not generally come to any emotional terms with their illness. Overconcerned about themselves, they often appeared anxious, depressed, and bitter. There is even some suggestion that they either permitted or sought hospitalization more frequently than the successfully adjusted patients. The signs portending difficulty in emotional adjustment may appear early in the convalescent period when the patient either overrestricts himself or, on the contrary, even tries to do too much too quickly. Some of our clinical material suggests that an overly cautious physician who fails to reassure the patient adequately may play into the patient's concerns.

Heart disease appears to lead to some changes in the way of life. At the very least, recreational participation is reduced. At the extreme, complete personal and family disorganization may result. If the patient returns to work, or continues to work at some suitable occupation, the effect on his personal life appears to be minimized. Generally his income remains stable, and his role in the family is unchanged. It is as if the family now pulls together. The patient reduces his responsibilities at home to some extent, and, if anything, the feeling between the family members is closer. The net result is that the "organism", consisting of the patient and his family, has achieved some state of compensation for the stress introduced by heart disease.

If the patient does not return to work, or does not continue to work at some suitable occupation, much more family and personal disorganization is evident. Chronic family problems, once tolerable, now become overwhelming. Passive personality characteristics previously not disabling now may interfere with the patient's ability to cope with the situation. Maladaptive defenses, such as projection and regression, and an emphasis on bodily complaints now interfere with the patient's ability to perceive his situation realistically and to approach it with some intent of solving the problems which face him. Apparently, when the patient relinquishes his role as the major provider in the family, the family unit itself changes and marital discord and other family problems become more marked. In response to his multiple personal and family problems, the patient feels helpless and hopeless. Particularly striking was the inability of these patients to follow recommendations which would alleviate their situation.

Prolonged pain, the development of heart failure, and arrhythmias are bad prognostic signs to the clinician in his evaluation of the patient's organic heart disease. In like manner, the development of a helpless, hopeless attitude toward old and new problems and the appearance of family stress and disorganization are bad prognostic signs for eventual rehabilitation.

This helpless, hopeless attitude of the UVA patient toward his problems dovetails with the impression of this group as generally passive, anxious and depressed and seemingly without adaptive resources. Perhaps these passive character traits also help to explain the acceptance of feminization in the UVA group as indicated by their increased domestic responsibility following illness. Passivity is generally identified as part of the feminized attitude in the language of the unconscious mind while activity tends to be associated with masculine attitudes.

It would be apparent that the personality strengths and weaknesses of the patient are as important indicators of his eventual rehabilitation as knowledge of his medical history is of his physical recovery. In our successful patients, the team felt that success was often due to their stable personalities and work histories. They were often valued employees with a long

history of staying on the same job. In many instances, the company valued the man sufficiently so that the job would be accommodated to whatever limitations he had. The UVA patients, on the other hand, before illness, sometimes had personal difficulties on the job, and they tended to move more and be in less stable occupations. These are all suggestions that many of these patients had not capitalized on their personal resources prior to illness. After illness, their personality weaknesses continued to interfere with rehabilitation, just as they interfered with the patient's best development of himself. In many instances personality issues were felt to be directly responsible for the patient's UVA status. Sometimes the patient was unconsciously using his illness to justify inadequacies. Sometimes to gratify passive and dependent needs, he continued to rely on disability pensions even though our own examination showed the patient not to be totally disabled. In other instances the patients became highly selective of the physical conditions of work they would agree to accept, or they set very high goals for the jobs they wanted. In some instances patients actually refused to take suitable jobs offered them. Our results indicate that just as a stable physical organism is a potent factor in recovery from cardiac illness, so a stable personality appears to be a potent factor in successful rehabilitation.

SUMMARY

The Cardiac Work Classification Unit, using group evaluation from the physical standpoint, the mental and emotional background, influenced by socio-economic factors, together with recommendations for treatment when needed (cardiac surgery, psychotherapy), training or change in jobs if indicated, offers a superior approach to the proper placement in industry of the person with heart disease. The uniform experience of such Units throughout the country is that most cardiacs can work without aggravating their heart disease. Knowledge of the factors which impede rehabilitation and vocational adjustment in patients with heart disease would enable early recognition of problem cases. Such knowledge would facilitate prompt preventive measures to reduce this group to a minimum. If this hard core group of patients could be returned to suitable work, it would represent the conversion of a social and economic liability to an industrial, social and economic asset.

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New Drug—Rheumatism, Arthritis

A recently developed drug has produced "good to excellent" improvement in patients suffering rheumatoid and arthritic disorders affecting one or two joints of the body, according to a Chicago physician.

Writing in the June 4 Journal of the American Medical Association, Dr. Emil D. W. Hauser said triamcinolone acetonide (Kenolog) proved successful in 66 of 67 such patients.

"Benefits were manifested by a sharp reduction in stiffness, tenderness, and pain; by a subsidence of swelling; and by an increase in joint mobility."

"Most patients noted a better response to triamcinolone acetonide than to hydrocortisone, and this was achieved with considerably lower dosage."

Hydrocortisone is the most widely used agent for direct instillation into the affected joint, the method used to test the new drug.

Since there are limitations on the amount of material that can be introduced into a joint, the potency of the drug is an important influence on the success of treatment.

Dr. Hauser said his experience had shown the drug to be "highly potent" while there was no evidence it caused any toxic reactions.

Sickle Cell Crisis Resembling Obstructive (Cholangiolar Type) Jaundice

Report of a Case and Review of the Literature

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The unusual occurrence of obstructive jaundice as a manifestation of sickle cell anemia is reported and the literature reviewed.

WITHIN RECENT YEARS the voluminous literature on sickle cell anemia has contained certain articles pertaining to the pathologic pattern of the liver in this disease.[1,2,3,4] Most of this literature concerns itself with autopsy findings. Other studies have attempted to correlate the pathologic changes progressing in the liver during life with concurrent clinical manifestations, hematologic alterations and liver function studies.[3,4,5,6,7] Particular attention has been given to changes occurring in the liver during the crisis* of sickle cell anemia. Although both hemolytic and hepatocellular jaundice are observed frequently in crisis, reference has been made only in rare articles to specific cases of crises with jaundice resembling cholangiolar obstruction.[3,4,7] Other authors have commented upon its occurrence in their experience without stating specific case reports.[5,6]

This is a case report of a patient with sickle cell anemia in crisis who, while under observation, developed an episode of deepening jaundice, a progressively enlarging liver and acholic stools, mimicking obstructive jaundice of the cholangiolar type. A review of the literature on this particular phase of the liver disease in sickle cell anemia is included.

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* The term "crisis" is employed in this article as Diggs defined it, namely "a striking and sudden change in the symptoms and signs in a patient with homozygous hemoglobin S disease" [5].

CASE REPORT

J. L., a 23 year old colored, single male, was admitted to the McGuire V. A. Hospital on February 2, 1957. One week prior to admission he had noted the onset of weakness, associated with low back and thigh pain, fever and a mild upper respiratory infection. The morning of admission his pain became much more severe and also involved the sides of the neck. He then noted nausea and vomiting and generalized abdominal pain, made worse by motion. The most severe pain seemed to be localized in the low back. He denied a history of alcoholism or exposure to hepatotoxic drugs. He had not received any injections or tranfusions in the previous two years.

His past history revealed that since the age of six years he had had multiple attacks of diffuse achiness and pain of varying intensity and duration in many extremities, occurring at irregular intervals, varying from three to four per year to once every two and a half years. These attacks were quite bothersome during his high school and college years while participating in baseball or swimming. In 1955 the patient had a hydrocele removed and one month later developed a purulent orchitis and epididymitis on the left, which necessitated subsequent left orchiectomy. Two days later the patient experienced a typical sickle cell crisis, lasting about two days. His mother had had episodes of abdominal and leg pains for many years.

Physical examination on admission revealed an acutely ill young Negro male lying in bed with his hands against his midback. He was 5 feet 6 inches tall, asthenic and well nourished. Blood pressure was 120/70. Temperature was normal. Pulse was 84 per minute. There was considerable pallor of the oral mucous membrane. The sclerae were muddy. The heart was very slightly enlarged to the left; a short, Grade I, systolic apical murmur was heard. The liver and spleen were not palpable. The left

testis was absent. There were no pretibial scars.

Pertinent laboratory data: Hemoglobin on admission was 10.3 Grams and varied between 9.0 and 10.3 Grams during the ensuing twelve months. Reticulocyte counts before, during and after admission fluctuated between 2% and 8%. White blood count was 16,550 cells per cu. mm. and differential count showed 80% polymorphonuclear leucocytes, 15% lymphocytes and 5% monocytes. Urinalysis was normal except for bile. Electrophoretic pattern of hemoglobin and alkali denaturation confirmed the diagnosis of homozygous hemoglobin S. Additional laboratory studies are shown in Table I.

Course in hospital: Although afebrile at the time of admission, his oral temperature the next day was 100 degrees F. and rose to 101 degrees F. by the third hospital day, declining to 99 degrees F. by the seventh hospital day. Thereafter, on occasional days, his temperature rose as high as 99.5 degrees F. During the first week his major complaints were those of extreme pain in the low paravertebral muscle areas and to a lesser extent in the abdomen and neck, requiring meperidine for relief. On the sixth hospital day he developed a transient pericardial friction rub; an electrocardiogram at that time was normal. Shortly after admission it became obvious that the patient was becoming progressively more jaundiced and that his liver was becoming increasingly enlarged to a maximal of five fingerbreadths below the costal margin. His stools became light

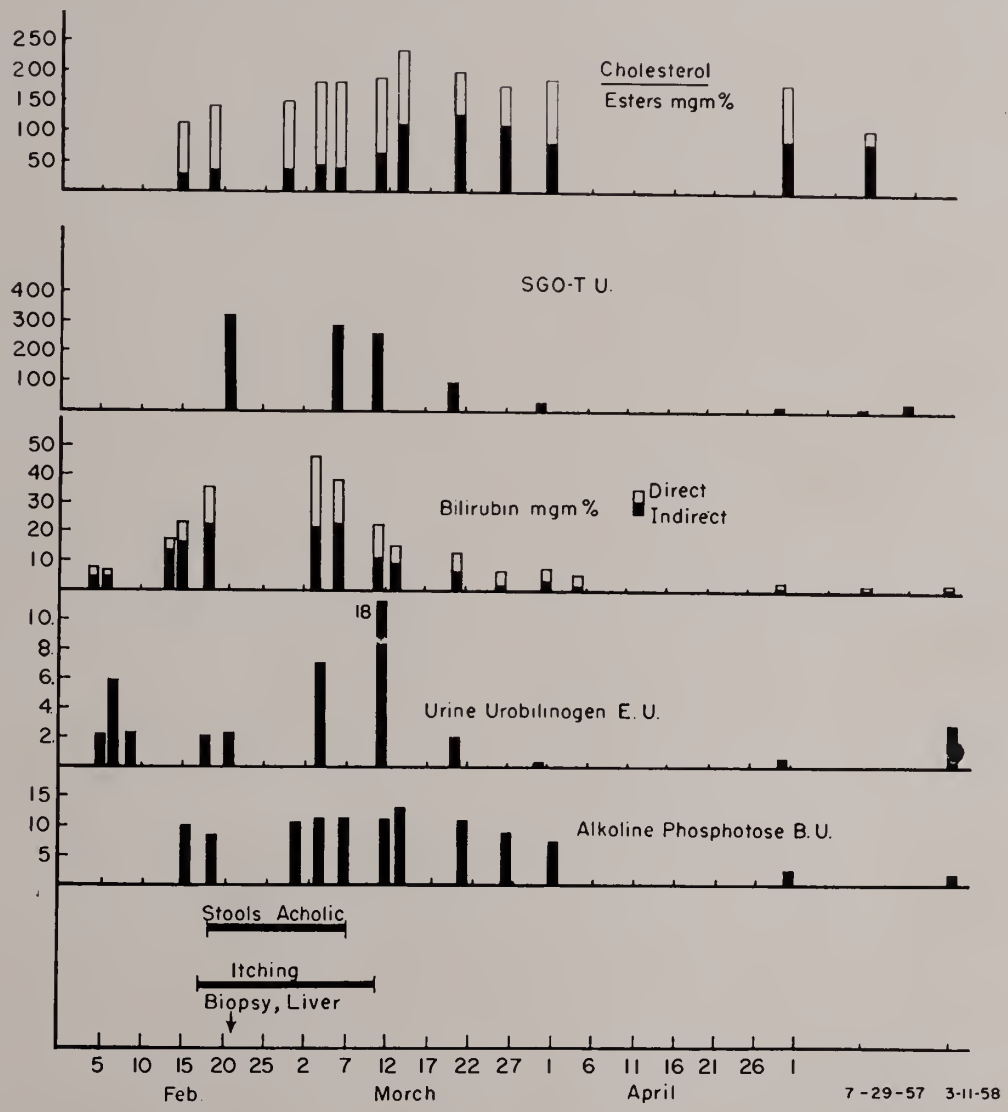

Table 1.—Laboratory data, patient J. L. Normal values: Serum glutamic oxalacetic transaminase 15-40 units/100 ml., total serum bilirubin 0.3-1.0 mgm/100 ml. with direct-reacting bilirubin 0.1-0.4 mgm/100 ml., urine urobilinogen (2 hr.) 1.0 Ehrlich unit, serum alkaline phosphatase 1-4.5 Bodansky units/100 ml.

yellow colored on February 18th and remained light in color until March 7th. Itching was a striking feature from February 18th to about March 12th. An x-ray of the abdomen showed no evidence of gallstones. On February 21, 1957, a liver biopsy was performed. The microscopic examination report is as follows: "the central portion of the lobules shows marked impregnation of the liver cells and of the Kupffer's cells by a brown, coarse pigment. There are also compact greenish-black elongated particles between liver cells resembling inspissated bile plugs within canaliculi. The size of the liver cells is fairly uneven and many of them have unusually large double nuclei suggesting active regeneration. There is considerable lymphocytic infiltration and fibrosis of the portal triads, however no anastomoses of adjoining portal spaces can be established. The morphology of the red cells cannot be adequately evaluated in this preparation. Perl reaction for iron is positive in some of the pigmented particles." After the period of acholic stools and itching subsided, the liver edge gradually receded to about 2 f.b. below costal margin. On April 25, 1957, a cholecystrogram showed normal function with no evidence of calculi. On April 30, 1957, he was discharged.

COMMENT AND DISCUSSION

The pathologic processes involving the liver in sickle cell anemia vary considerably in severity, and have been well documented.[1,4,6,9,10] Essentially, crisis—>sickling—> vascular stasis—>plugging—>hypoxia—>hemolysis and disruption of integrity of the liver.[19] In recent years particular attention has been paid to the types of jaundice associated with the sickle cell crisis.[3,4,5,6,7] A total of five authors in recent years have referred to an obstructive type of jaundice accompanied by marked abnormality of liver function, resembling a cholangiolar type obstruction, whose features include an elevated direct bilirubin, an enlarged or progressively enlarging liver, stools either negative for bile or light brown in color, elevated urine urobilinogen, and bile in the urine (see Table No. 2.) The liver histologically shows engorgement of sinusoids by packed sickled erythrocytes, pigmentation and granular cytoplasm in liver parenchymal cells, erythrophagocytosis and frequently obstruction of sinusoids by engorged Kupffer's cells, inspissated bile plugs in bile canaliculi and focal hepatic necrosis with or without fibrosis.[3,4,5,6,7,12] These patients likewise show elevation of serum alkaline phosphatase to a moderate extent, and usually some elevation of serum cholesterol with or without a rise in esters.[6] Henderson feels that since the total cholesterol is reduced in chronic hemolytic states that any elevation above 150 mgm.% in the presence of an elevation of direct bilirubin is significant of cholangiolar dysfunction.[6] It is interesting to note in our patient that although an abnormal cephalin flocculation test was noted early in the course of this severe jaundice, it reverted to negative shortly thereafter. This finding has been commented upon by Ducci as being noted in obstructive jaundice, even with hepatocellular damage.[13]

The differential diagnosis between this entity on the one hand, and infectious hepatitis or homologous serum jaundice on the other, is most perplexing. In

TABLE 2.—REVIEW OF THE LITERATURE OF OBSTRUCTIVE JAUNDICE OF THE CHOLANGIOLAR TYPE IN SICKLE CELL CRISIS.

Author		Enlarged Liver	Elevated Direct Bilirubin	Elevated Alkaline Phosphatase	Increased Urine		Decreased Stool	
					Bile	Urobilinogen	Bile	Urobilinogen
CASES			(I.I. 150 U.)		Yes	Yes	Yes	
1. Grover (1947)	1	Yes						
2.	2		(Total 10 mgm.%)		Yes	Yes	Yes	
3. Green, et al. (1953)	1	Yes	Yes	Yes	Yes	Yes		
4.	2	Yes	Yes	Yes	Yes	Yes		
5.	3	Yes	Yes	Yes	Anuric			
6.	4	Yes	Yes	Yes				
7. Bogoch, et al. (1955)	1	Yes	(Total 10.6 mgm.%)	Yes	Yes (history)	Yes	Yes	
COMMENTS								
8. Henderson (1950)		Yes	Yes	Yes			Yes	Yes
9. Diggs (1956)		Yes	Yes	(Yes)	Yes	(Yes)	(Yes)	
10. *PRESENT CASE*		Yes	Yes	Yes	Yes	Yes	Yes	

the early stages of either type of viral infection, during the period of rapidly increasing jaundice it is not unusual to find stools light brown or even clay colored for a short time. Apart from the usual features of exposure and incubation period, liver biopsy may be helpful in differentiating these conditions. In the only report of cases of "viral" hepatitis with sickle cell anemia, there were no pathologic specimens examined[18]; moreover, the clinical findings and laboratory data reported are compatible with sickle cell anemia alone. Another helpful feature in distinguishing the two diseases is that the cholangiolar form of obstructive jaundice of sickle cell anemia is seen during or immediately after the period of acute crisis.

A hemolytic crisis of sickle cell anemia in this patient was felt unlikely because a rapid drop in his hemoglobin determinations or an abrupt rise in the indirect Van den Berg reaction was not demonstrated. Fecal urobilinogen studies were not determined. They would not have been helpful in diagnosing a hemolytic disorder since the stools were acholic. The Schmidt Test, used to test the stool qualitatively for bile, depends upon the presence of adequate urobilin.[8] It seems logical to assume that bile in small quantities was escaping by the common duct into the gut but converted by bacterial action to urobilinogen and re-absorbed to be excreted in large part by the kidneys. Further support for this assumption is the observation that urinary urobilinogen continued to rise although stools were acholic and rose to a maximal value after stools became brown in color and positive for bile.

The relationship between "true" cholangiolar involvement as noted in other diseases and the particular type seen in sickle cell anemia is more apparent than real. Perhaps the only resemblances lie in superficial clinical mimicry and a definite similarity as shown by particular liver function tests. Histologically there is little resemblance. The liver in the cholangiolar type of jaundice seen in sickle cell anemia shows dilated and engorged sinusoids with or without engorged Kupffer cells contributing to the sinusoidal obstruction.[3,4] Canalicular narrowing and obstruction with bile plug inspissation are noted. Bogoch postulated the elevated alkaline phosphatase seen in this situation may be a consequence of canalicular narrowing and obstruction brought on by sinusoidal widening.[4] Henderson felt that in the absence of cholelithiasis a rise in direct reacting bilirubin also suggested "cholangiolar dysfunction."[6] Varying degrees of parenchymal degeneration and/or necrosis, with ultimate fibrosis contribute to the hepatic dysfunction as measured by various laboratory parameters such as flocculation tests, liver enzyme tests, excretory tests and serum protein determinations. Yet none of these determinants are helpful in differentiating this entity from other causes of cholangiolar involvement.

The problem of cholelithiasis in sickle cell anemia has been reviewed by Weens.[15] In a review of 44 cases compiled from autopsy material and surgical papers there were 12 cases of gallstones. Sheaffer, in 1942, reported the only case of surgically relieved obstruction of the common bile duct due to stones.[16] This stone and another stone obstructing the cystic duct were seen on abdominal films and were visualized by gallbladder series during a non-obstructed interval prior to surgery. His patient developed increasing jaundice, hepatomegaly, an elevated direct Van den Berg, total cholesterol, alkaline phosphatase and clay colored stools. Urine urobilinogen determinations were not performed. This case is quite similar to the present case. One other case of common duct stone has been found at autopsy but was apparently non-obstructing.[3] In the case reported herein, the possibility of obstruction due to common duct stone was entertained, but minimized because of the relative infrequency of this complication in comparison to the more likely complications of cholangiolar obstructive jaundice and also because of the elevated urine urobilinogen determinations which suggested cholangiolar involvement. After the jaundice receded, cholecystogram with oral dye revealed no evidence of stones. Perhaps a cholangiogram using intravenous contrast dye and performed earlier may be of help in future cases of this disorder. Obstruction due to stones should be excluded and surgery avoided thereby, if possible. Although there is a possibility that a non-opaque stone not visualized on abdominal x-rays was causing the obstruction, this possibility appears less likely in view of the failure to reveal any stones in the period after obstruction.

SUMMARY

A case report and review of the literature of sickle cell crisis resembling obstructive jaundice of the cholangiolar type has been presented. The major features include increasing jaundice with direct Van den Berg reaction, an enlarging liver, acholic or light-colored stools, elevated urine urobilinogen, and bile in the urine. The distinguishing features of this symptom-complex have been described.

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Lewis-Gale Hospital
Roanoke, Virginia

Bus Service During the Annual Meeting

Two special buses will be operated for the convenience of members during the Annual Meeting. These buses, provided by the Convention Bureau, will shuttle between the Cavalier and the Convention Center and will be available throughout each day. They will not run on any definite schedule. Instead, they will operate at any time the need arises—for one or fifty—it makes no difference. Use them often.

James Bolton, Surgeon-Oculist

His Place in the History of Ophthalmology

G. E. ARRINGTON, Jr., M.D.
Richmond, Virginia

James Bolton was a man of whom Virginia should be proud. His life and his contribution to medicine are discussed.

PRIOR TO THE CIVIL WAR in the United States, students interested in medicine frequently studied or completed their training in European medical centers. This was especially true of the medical specialties, with London, Edinburgh, Paris, Vienna and Berlin attracting great numbers of American students. One notable exception to this was James Bolton, the subject of this study, who was schooled entirely in this country.

Bolton came to my attention through my discovery in the Library of the Medical College of Virginia of a copy of his brief treatise entitled: *A Treatise on Strabismus With a Description of New Instruments Designed to Improve the Operation for its Cure in Simplicity, Ease and Safety,* published in Richmond, Virginia in 1842. (Fig. 1b). It became clear from reading this work that Bolton was a man of outstanding intellectual quality and that a thorough study of his relationship to the history of strabismus therapy was warranted. This paper is the result of that study.

I should like to acknowledge my gratitude to Mr. James Bolton of Richmond for his invaluable assistance in making geneological data and rare photographs of his grandfather, Doctor James Bolton, available for my study. In my interview with Mr. Bolton, I learned that Doctor Bolton himself suffered from poor eyesight and that this may have played a role in stimulating his interest in ocular disorders. The exact nature of his ailment is unknown.

BIOGRAPHY

James Bolton (1812-1869) (Fig. 2) was a surgeon and oculist of note who practiced in Richmond, Virginia, during the first half of the nineteenth century. Bolton was born in Savannah, Georgia, on June 5, 1812, the son of a successful merchant. His mother was the "daughter of a descendant of a family of one of the original settlers of Georgia."[1] After his childhood years in Savannah the family moved to Jamaica, Long Island, New York, where in 1831, Bolton was graduated from Columbia College; in 1835 he received his A.M. Degree from the same institute. Six years later he received his M.D. Degree from the College of Physicians and Surgeons in New York City. Subsequently he studied ophthalmology and otolaryngology in the office of Doctor John Kearney Rodgers, who after returning with Edward Dellafield (editor of the American Edition of Benjamin Travers' "A Symposium of Diseases of the Eye") from studies in London in 1818, had opened the New York Eye and Ear Infirmary, one of the first American eye hospitals, that is still in existence today. Bolton's treatise on strabismus is dedicated to his teacher, Rodgers.

Bolton also was a clinical assistant from some time to America's most eminent surgeon, Valentine Mott. Destiny brought him to Richmond where he found his bride, Miss Anna Maria Harrison, whom he married October 3, 1838. (Fig. 3) This union resulted in ten children, seven of whom survived—five sons and two daughters. The last son, Benjamin Meade Bolton, was a physician who practiced in Richmond, Virginia. James Bolton practiced general medicine as well as surgery and ocular surgery.

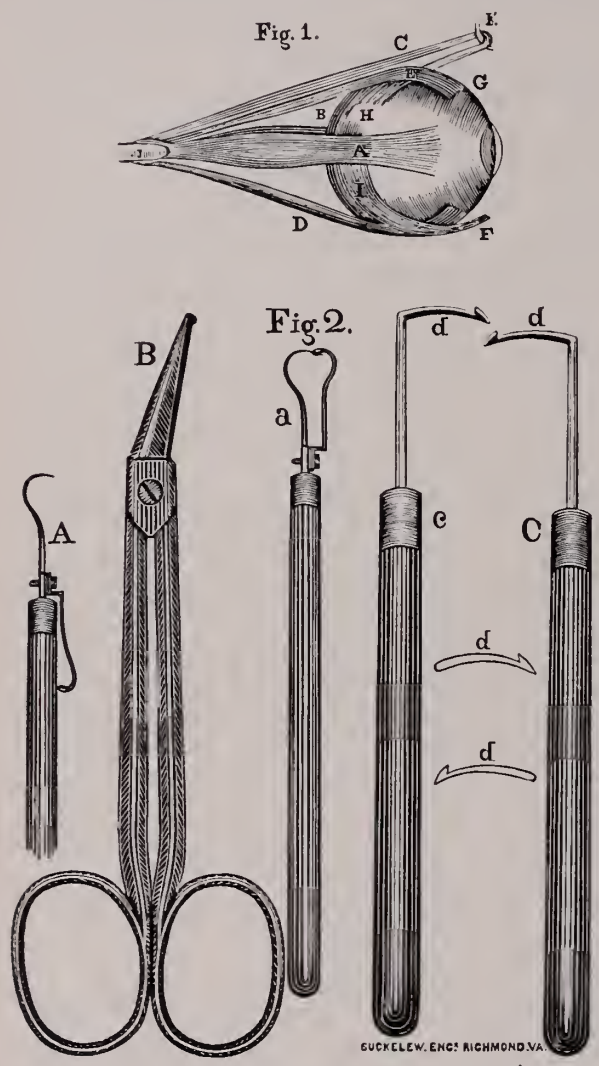
It must be remembered that ophthalmology did not gain its present stature as an independent medical discipline until Albrecht von Graefe came on the scene two decades later.[2] During Bolton's day ophthalmology was still in the hands of general surgeons, and played a subordinate role. However, the evidence is clear that certain surgeons such as Bolton had deep interest in ophthalmology and made valuable contributions to its development.

". . . He began the practice of medicine and surgery in Richmond, Virginia, but temporarily abandoned this to attend the Episcopal Theological Seminary at Alexandria, Virginia, where he was ordained. He then took charge of St. Luke's Chapel in Richmond, Virginia, but about one year later he resumed the practice of medicine in the same city. This profession he followed for nearly 25 years earning great distinction and success.

"Doctor Bolton declined a professorship in Virginia Medical College situated in Richmond. He contributed frequently to medical journals."[3] ". . . his presidential address in 1867 before the State Medical Association on the 'Origin of the Negro' was unhappily destroyed by fire before being printed."

"During the Civil War, he was active in his profession on the field and in the hospital, often being assisted by his self-sacrificing and devoted wife. At the first Battle of Manassas (or Bull Run), President Jefferson Davis telegraphed for him to come at once with a corps of nurses to aid in relieving the wounded. He immediately went to the battlefield and remained until all the wounded were cared for; his wife accompanied him and took charge of a corps of nurses and cooks. Returning to Richmond he resumed his practice. He was commissioned a surgeon in the Confederate Army and was assigned to duty as surgeon in charge of officers in private quarters.

"At the battle of Spotsylvania Court House, in the summer of 1864, he again went into the field. On the evacuation of Richmond, at the request of General Robert E. Lee, he joined the General's personal staff and remained with him until the surrender at Appomattox Court House. After the war he prac-



1a. Frontispiece of Bolton's *Treatise on Strabismus.*

A TREATISE

ON

STRABISMUS,

WITH A

DESCRIPTION OF NEW INSTRUMENTS

DESIGNED TO

IMPROVE THE OPERATION FOR ITS CURE,

IN SIMPLICITY, EASE AND SAFETY,

ILLUSTRATED BY CASES.

BY JAMES BOLTON, M.D., A.M.
MEMBER OF THE MEDICAL SOCIETY OF VIRGINIA.

Ἐ'ίδομεν, οὐκ ἐξ ἑτέρων
Μύθων 'ἔχομεν φράσασθαι.
Εὐριπίδου Μήδεια.

RICHMOND:
PRINTED BY P. D. BERNARD, MUSEUM BUILDING.
1842.

1b. Title page of Bolton's *Treatise on Strabismus.*

Fig. 2. Previously unpublished daguerreotype of James Bolton about 1842 when his "Treatise on Strabismus" was published. (Courtesy of Mr. James Bolton, Richmond, Virginia.)

ticed his profession in Richmond until his death May 15, 1869. He is buried in Hollywood cemetery near Richmond.

"A physician who knew Doctor Bolton, wrote of him: 'He was very much beloved by members of our profession, and no man had gained a higher reputation for skill and conscientiousness.' "[4]

Bolton took interest in the development of medical thought and education serving as an editor of the *Stethoscope* in 1854; and on the board of trustees of Hampden-Sydney College in 1853, in medical organizations, serving as president of the Medical Society of Virginia in 1858 and on important committees of the American Medical Association; in civic responsibilities advocating public health measures to curb cholera and requiring labeling of "secret nostrums"[5] and finally in patriotic issues, serving as a surgeon in the Confederate Army.

In 1854, Richmond's first private hospital called Bellevue Hospital, located in the then exclusive Church Hill district at Broad and 22nd Streets, had James Bolton on its first staff.[6] Nearby was Chimborazo where possibly the finest Confederate Military Hospital was located during the Civil War. "In and around Richmond were some 23 hospitals of varying

Fig. 3. Doctor James Bolton and Mrs. Anna Maria Harrison Bolton about 1840. (Courtesy of Mr. James Bolton, Richmond, Virginia.)

size and quality. The largest was set up on Chimborazo Hill, just outside the city." "A staff of about one hundred surgeons and nurses was in attendance." It was ". . . a military post under the command of the director, Doctor James McCaw." "This fine hospital functioned for three and one half years, during which time 77,000 patients were treated, more than 70,000 of them being returned either to their homes or to the front." [7]

When Doctor Samuel Preston Moore of Charleston, South Carolina, Surgeon General of the Confederate States of America, sought qualified physicians and surgeons, Bolton responded to the call of his adopted state, Virginia, serving on the Board of Surgeons of General Hospital No. 4 for officers and in other hospitals during 1863 in Richmond and Lynchburg.[8]

Bolton became "surgeon in charge at 'Howard's Grove', the receiving hospital for the wounded brought from the seven days fight around Richmond, Gaine's Mill, Seven Pines, Mechanicsville, etc." [9]

For a time he was in charge of Bellevue Hospital and was on duty later at the Hospitals of Chancellorsville and the "Wilderness".

The war that rivaled the Napoleonic Wars, in which more than three million men took part, took its steady toll of life, property, and hope. Insufficient supplies to fight disease and infection led to smuggling, running the blockade, and even the cultivation of poppies for opium. But these measures "were not successful enough to make any marked difference. The medical effort was valiant and commendable, but it proved as impossible to care adequately for the Southern soldiers as it was for the magnificent fighters of Marse Robert and 'Old Pete' Longstreet finally to beat so powerful an enemy as the Union, with its superior man-power and resources." [10]

In the dark dusk of defeat, Bolton returned to Richmond, a city gutted by fire to pick up the loose ends of peaceful life again. (Fig. 4) But in the spring of 1869, he was stricken by Bright's disease that proved to be his final illness with death coming at his home in the bosom of his family on May 15, 1869.

BOLTON ON STRABISMUS

It is interesting to consider the content of Bolton's thought in this treatise in the light of the general concept of strabismus in his day, and to compare it with our own views.

As in so many ophthalmological problems, the problem of strabismus must bring us to questions of basic medico-philosophical import in relation to single binocular vision, retinal correspendence, suppression, structural versus functional view of squint etiology and mechanism and the subsequent questions of prognosis and therapy.

Fig. 4. Photograph of James Bolton about 1864. (Courtesy of Mr. James Bolton, Richmond, Virginia.)

While Bolton's book does not attempt to reach such deep analysis of all the factors involved in the development of understanding strabismus, it does present in an accurate way, the anatomical features, especially the morphology, physiology and mechanics of the extraocular muscles, especially the oblique muscles. He emphasized the importance of understanding the action of the oblique muscles saying, "I have occupied thus much space in endeavoring to throw some light upon this question as it is highly important that the true function of these muscles should at least be understood, before any attempt be made to cure strabismus by the division of them" (p. 10). The first section of the book entitled, Muscles of the Eyeball, deals with the anatomy.

The inferior oblique muscle is described as passing "obliquely outward, backwards, and upwards, between the lower straight muscle and the floor of the socket, and it is attached to the sclerotic coat above the middle of the external straight muscle, opposite

the attachment of the Superior oblique." (p. 7) (Wolff's Anatomy of the Eye and Orbit, Blakestone Company, New York, 1954, confirms Bolton's anatomical views stating that the inferior oblique muscle "passes outwards and backwards, . . . between the inferior rectus and the floor of the orbit, then under the external rectus to be inserted by a very short tendon . . . to the back and outer portion of the globe. . ." p. 231) He also points out errors of his contemporaries in a footnote as follows: "It is remarkable that in the figure of the muscles in Dix's 'Treatise on Strabismus', the error should have been overlooked that the inferior oblique is presented as passing between the eyeball and the Inferior Straight muscle. The same oversight occurs in a similar drawing in Paxton's Anatomy." (p. 7) He then goes on to show the inconsistency of the descriptions of the actions of the superior and inferior oblique in the following authors: John Bell, Cloquet, Meckel, Charles Bell, Paxton, Horner and so on. He notes that in considering the action of the superior oblique, it would be simple "to consider the oblique muscles as acting from the upper and lower edges of the socket, anteriorly to the external extremity of the transverse diameter of the eye, upon the ball itself posteriorly to the outer extremity of the same diameter." (p. 8). "Hence I conclude, that the office of the Superior Oblique is to turn the pupil downward, inward and backward, and that of the Inferior Oblique to turn the pupil upward, inward and backward, and that their combined action turns the pupil directly inward and backward, and also tends to protrude the ball." (p. 9) (Wolff's Anatomy, 1954, states that "*The Main Action* is depression [agreeing with Bolton] but more precisely, the superior oblique makes the eye look downwards, or outwards or (wheel) rotates it inward" and that "The abductor component of the action of the oblique muscles is due to their being inserted behind the equator of the globe". p. 230) This latter action is not mentioned by Bolton and indeed Bolton still reserved a secondary, inward action of the obliques, which is no longer held to be true. It is significant, however that Bolton's anatomical drawing (Fig. 1a) places the insertion of these muscles correctly behind the equator thus rendering them instrumental in *outward* rotation. He also states, "The importance of the action of the inferior oblique has been fully shown by Charles Bell (See Charles Bell's Interesting Remarks on Muscular Relaxation in Gibson's Surgery, 6th Edition, Volume 2, page 359), and it may not be hazarding a conjecture too theoretical, to consider the Superior Oblique as intended chiefly to steady the motion of the ball produced by its antagonist". (p. 10)

Bolton gives Charles Bell's description that the superior oblique turns the pupil downward and outward and that the inferior oblique "reverses the motion of the Superior Oblique". (p. 8)

Six muscles in all are described, four straight and two oblique. Their anatomical arrangement is correctly described including the interlacing of their fibers with the white circular band around the cornea usually called the white of the eye (sclerotic coat). He noted that since their posterior attachment is "situated nearer to the internal than the external wall of the socket, there results a corersponding difference in their lengths; the internal being the shortest." (p. 1)

The actions of the straight recti muscles are described. He notes "antagonist muscles" (p. 1) and compares them to the reins of a horse with "one drawing while the other slackens and the relaxation of the latter being always nicely adapted to the degree of contraction of the former."

He notes that "the pupil is capable of being turned further inward than outward" (p. 6) which he explains by the checking of the motion by the optic nerve and he notes that "the curved course of the nerve between the optic foramen and the ball also contribute to render these motions more free, by allowing the distance between these points to be lengthened by the straightening of the nerve when drawn upon. Had the nerve taken a straight course, and then attached at right angles to the ball, the motions of the ball must have been like the nodding of a flower upon its stem. It is evident, that the design of enabling the eyes to turn inward freely, is that they may readily be both directed to an object at the same time when the pupils of the eyes must necessarily be inclined toward each other, approaching when the object is near, and receding when it is remote." (p. 7)

He described the superior oblique correctly with its course through the "pully" with a senovial capsule.

Bolton's thinking proceeded in an orderly fashion as is evidenced by his thorough consideration of the definition, varieties and causes of strabismus ranging from the most homely reference to a "broad capborder hanging near the eyes" to revealing insight into the relationship of the central nervous system to squint as follows:

Chapter two is entitled "Strabismus". He gives synonyms, "The expressions used in common parlance to denote this affection are squinting, a cast in the eye, cross-eyed. Strabismus is derived from the Greek word *στραβιζω*, I squint; whence those who are affected with this deformity were nicknamed Strabo by the Romans. *Definition:* "The natural positions of the eyes are such that their axes of sight if prolonged would meet at any point to which their vision may be directed. Any deviation from these relative positions constitutes strabismus." (p. 11) *Varieties:* He states that one or both eyes may turn in (that is, single or double strabismus) and he notes ". . . the relative positions of the eyes are always preserved more or less perfectly, in whatever directions they may be turned." (p. 12)

Causes: "It seems doubtful whether any child has been born with this deformity, but a disposition to it certainly seems capable of being *inherited;* for well marked instances occur, where all or nearly all the children of a family resemble one of the parents in having this defect. I do not place much reliance upon the statement of parents, that their children were born cross-eyed; for in the first place we rarely hear patients attribute strabismus to this cause; and in these few instances we may explain it in the following manner. If we watch the eyes of infants, we will find their motions very unsteady and often not acting in concert thus frequently causing considerable anxiety to inexperienced parents. When the child is older, if it should not squint, this will be forgotten, but if it should, the parents will remember to have observed it in infancy." (pp. 12 & 13)

Light falling obliquely upon the eyes of an infant . . . "has long been thought to be a frequent cause". (p. 13)

"*Attractive objects presented on both sides of an infant at the same time,* as a broad cap-border hanging near the eyes, etc." (p. 13)

"*Opacity of the cornea before the pupil* compelling the light to pass obliquely between the cornea and iris in order to reach the pupil." (p. 13)

"*Intolerance of light* causing the patient to bury the pupil deeply in the orbit at the internal canthus. (p. 13)

"Whooping Cough sometimes occasions it. The general convulsions which sometimes occur in this disease, may be accompanied by convulsive action of one of the muscles of the eye, which being repeated gives rise to habit, by which the strength of this muscle is permanently increased beyond that of the antagonist." (p. 13)

"*Convulsions* also, from any cause. *Severe hemorrhages of the head,* as from the kick of a horse, etc." "In convulsions and injuries of the brain, there is often partial congestion of the organ, which may occur at that part with which the nerve is connected which endows with motion the upper, lower and inner straight muscles of the eye, or it may occur at some point in its course, and partially paralyzing it, cause an undue action of the outer muscles, which is thus deprived of the existence of its antagonist. In like manner, a partial congestion may temporarily paralyze the outer straight muscle, which is supplied with its own peculiar nerve. The passage of this nerve through the Cavernous Sinus may render it peculiarly liable to the accident. (Note: Charles Bell is of the opinion that internal squinting is usually owing to atony of the external straight muscle, and the internal being unresisted contracts itself permanently. Gibson's Surgery, Volume 2, p. 365.) Irritation of abducens nerve cause a directly increased action of the external straight muscles. Irritation of the third pair of nerves would cause increased action of the three other straight muscles, the simultaneous contraction of which would turn the eye inward; for the upper and lower counterbalance each other while the internal would not be adequately opposed." (p. 14)

Bolton realized that the efforts to correct squint are motivated by more than the desire to achieve functional results and he sympathized with the patient's viewpoint that the prime reason for correction is to relieve the serious emotional problems. He writes:

The ". . . principle objects for which the operation is submitted to, is the removal of the deformity: and this is more important than it is usually considered. The ridicule to which the unfortunate person is exposed, often seriously affects his temper and disposition. The mortification which it occasions, is not even alleviated by sympathy, the solace of those whose deformity renders them helpless" (p. 15)

"Subject to the sneers of his companions in childhood, constantly reminded of his misfortune by some nickname which may remain attached to him through life, exposed to the suspicions of the prejudiced and superstitious or to the pity of the benevolent, which is not less hateful to him, he grows up with feelings rendered callous with misanthropy or morbidly sensitive, by the irritation of frequent wounds. There is no one, who would not willingly suffer the extraction of a tooth, if by this means he could rid himself from this constant source of mortification, and yet

the operation for its removal is far less painful: in proper hands and with properly constructed instruments free from danger, and almost certainly successful. Without vanity, I may say, that injury to the eye with my instruments is scarcely possible. The sight of the turned eye is usually defective, as will be hereafter explained, and it is often very much improved by the removal of the distortion. Finally, if perfect success should not ensue, the eye will certainly not be in a worse condition than before." (p. 15)

Bolton was operating at that time without the benefit of anesthesia which did not come into general use until 1845 (Ether) to 1847 (Chloroform). In fact, it is interesting to note that the first discoverer of ether anesthesia, another surgeon, Crawford Long, M.D. of Jefferson, Georgia, first administered ether for removal of a neck tumor in the same year that Bolton published his treatise, (1842) although Long did not accumulate sufficient data to justify publication in the *Southern Medical and Surgical Journal* until 1849.[11] As a consequence, Bolton, demonstrating his humanitarian nature, sought a way to relieve as much suffering associated with the operative correction of strabismus as possible. He noted that the pain due to the incision itself was far outweighed by the discomfort occasioned by prolonged exposure of the eye without the moistening accomplished by blinking. He noted that, "A patient, who was operated upon in the usual manner, told me, that at one time he would have have given worlds to have been allowed the favor of one wink." Bolton set out to solve this problem and he found his solution in the guarded hook instrument that he invented and illustrated in this work. (see figure 1a) By means of this instrument the patient could close his eye during the procedure without dislodging the hook that had been passed under the internal rectus tendon.

TECHNIQUE

His surgical technique in full was as follows:

"I first bind up the sound eye, which prevents the patient from being so much alarmed by the sight of the instruments [again his sensitivity for the feelings of the patient] and enables him to have the eye on which I intend to operate more under his control. Having seated myself in front of the patient who is also seated rather lower than myself, and having on my right hand a chair holding a basin of water, sponge and the necessary instruments; an assistant standing behind the patient, raises the upper lid with his forefinger and if necessary depresses the lower lid in a similar manner. I then request the patient to look in the opposite direction to that in which the eye is turned and immediately introduce the hook (A) flatwise, about half way between the cornea and the inner canthus of the eye passing it across the lower margin of the internal straight muscle, taking up a fold of the conjunctiva and cellular membrane beneath, rather less than a quarter of an inch broad, and as soon as the point emerges, I slip the guard over it. Then drawing gently upon the hook, which if it passes sufficiently deep, enables me to control the ball (Note: The dense facia covering the muscles, or even some of the fibers of the tendon may thus be taken upon the hook. See a description of the facia of the eyeball by Lucas, in the American Journal of Medical Sciences for October, 1841, p. 493.) I clip through the fold, thus raised with the scissors (B), holding the broad blade downward; and a drop or two of blood flows. If the patient now wishes to close the eye, I permit him to do so for a few seconds. Having the lids parted again, I draw the hook gently outwards and quickly introduce the point of the silver director (C) flatwise into the incision, holding it in such a manner as to direct the handle toward the eye, and having the convexity of the curve downwards. Then, by slight rotary motion of the handle, I work the point upwards, between the tendon and sclerotic coat then tilt the handle outwards, directing it towards the nose, and quickly work the end upward following the curvature of the ball, until the barb emerges above the upper edge of the tendon, where it can sometimes be seen shining distinctly. Then making the smaller blade of the scissors follow the silver director, with two or three clips I completely disengage it, by dividing at once all the layers of tissue by which it is covered. I then remove all the instruments, sponge the eye well with cold water until the bleeding ceases, and sometimes probe the wound from one end to the other to ascertain that no fibers are left undivided. I am thus generally, enabled to see distinctly the bare sclerotic coat throughout the whole extent of the incision. This satisfies me that the operation has been performed thoroughly. I then request the patient to look in the direction of the previous obliquity, and generally find, that the deformity has entirely disappeared, and indeed that the patient is unable to turn the eye farther in that direction than the natural position which is nearly central. The effort to turn the eye inward produces a strong contraction of the inferior straight muscle by which the pupil is drawn downwards.

"After treatment: Usually all that is required afterwards is to keep the eye cool by cold water dressings. For this purpose, a strip of linen about two fingers wide is to be passed obliquely over the head, over the brow of the eye which has just been operated upon with a few folds of the same material hanging from the brow over the eye. This linen flap is to be kept constantly wet with cold water for a day or two. It is sometimes of advantage, also to direct the patients to take one or two Seidlitz Powders or a dose of Epsom Salts. The inflammation which follows is almost invariably very slight, and the patient may usually attend to his business without interruption. After my own operations I have never seen it otherwise.

"Frequently, *granulations* sprout from the wound, which in about a fortnight will be found to have united from both ends to a point about the middle, where they form a fungus growth like a polypus, which is attached by a peduncle or stem of about the size of an ordinary knitting needle. This should be clipped close with a pair of curved eye scissors, which may be done without the slightest pain, and its points of attachment may be touched with a pencil of nitrated silver. This treatment will at once remove it entirely, and it is much more expeditious and less painful, than the tedious method of destroying it by caustic. Indeed I have found the Lunar Caustic to make scarcely any impression upon it. After its removal the remaining redness of the eye disappears rapidly. There is usually a great improvement in the appearance of the eye, even the next day.

"If, after the part has entirely healed, some *chronic inflammation* should remain, its removal will be hastened by putting in the corner of the eye, two or three times a day, a few drops of a solution of Sulfate of Zinc (one or two grains with a drachm of wine of opium to an ounce of rain water.)

"*General Remarks:* The operation occupies from one to two minutes, when the patient has sufficient firmness to submit without resistance. The pain which it produces is very slight." (pp. 16-18)

Bolton himself sought the better solution to the problem, namely, anesthesia, and while we have no references from him regarding anesthesia in ocular surgery, in his general surgical work, he was among the first to use it.[12]

Bolton saw, as we do still, the wisdom in bilateral strabismus of operating on the most severely affected eye first and to ". . . allow that to recover entirely before attempting to do anything to the other eye; because first the operation on one may rectify the position of both and this result may take place instantaneously or gradually, and the patient should be allowed the benefit of this possibility; second, if the operation on the second eye be performed before the first divided muscle has become attached to the eyeball, the pupil of the eyes is liable to become too much everted; third, it is inconvenient to the patient to be deprived of the free use [by bandage] of both eyes at the same time." (p. 22) Certainly these reasons for attacking problems of heterophoria conservatively and in several stages are still logical and deserve consideration today. His reasoning, so clearly and simply put is a lesson in good medical literature.

Bolton alludes (possibly the first to do so) to the condition we now know as the blind spot syndrome and he describes amblyopia ex anopsia as follows:

"In Internal Strabismus, the light must fall near to, or upon this insensible extremity of the nerve (the optic disk). This defect is partly attributable to the fact the eye having long lain in a state of disuse; as watchmakers, sportsmen, etc., become partially blind in one eye owing to the power of the vision of the other having been increased by practice; so that at length its impressions alone are attended to and those of the other, being more faint are disregarded." (pp. 25-26)

Bolton's extensive knowledge of ocular and visual physiology in explaining symptoms implies possible familiarity with the writings of the famous Berlin physiologist, Johannes Müller, who was his contemporary and who had already expounded the theory of corresponding retinal points in his textbook, *Handbuch der Physiologie des Menschen,* Vol. I, 1833, and Vol. II, 1840, Bolton wrote the following:

"Double vision sometimes follows the operation. This inconvenience gradually wears off, either from the eyes gradually assuming a perfect corresponding position, and thus producing a single impression upon the brain; or from the impressions of the eye which has changed its position being at length disregarded as before." (p. 26)

He also realized that squint surgery is most successful when performed early in childhood when "The eyes will adapt themselves to each other in position better, before those changes in the system are completed, which end in maturity." (p. 26) Furthermore "the mortification occasioned by the deformity in after life may then be entirely prevented." (p. 27)

Bolton disapproved of surgery of the oblique muscles saying, "I have never performed this operation nor yet convinced myself of its propriety for the cure of Strabismus; or especially, as there is so much discrepancy of opinion, as to what their actions really are. This opinion is confirmed by that of Charles Bell." (p. 27)

Eight successful cases are reported.

HISTORICAL EVALUATION

It is appropriate here to consider the comparative state of Bolton's ophthalmological thought with that of his contemporaries. From the early belief that crossed eye is due to the curse of an angry god or ill luck engendered by the evil eye of another cross-eyed person, concepts of this condition developed slowly through the ages. Hippocrates distinguished paralytic from concomitant squint.

Early views of therapy in which the gross if not brutal method of wearing masks or pinhole (stenopic) spectacles designed to force the eyes to turn in or out were adopted by Ambroise Paré in the 16th century. His notions of the etiology of squint were still in evidence in Bolton's list of causes, namely, first, malposition in the cradle and second, imitation of the nurse. By 1707, Anton Maitre-Jean listed as the causes: First, imaginary vices of the visual spirits, second, tilting of the crystalline lens, and, third, spasm of the ocular muscles. This was a more imposing list, evidencing the deeper insight into ocular functions characteristic of this figure in ophthalmological history who first brought attention to the lens as the site of cataract.

De la Hire (1640-1718) directed attention to the retina believing that in cases of squint, the most sensitive part was placed eccentrically thus establishing an abnormal visual axis.

By 1725 Chevalier John Taylor (1703-72) the famous flamboyant quack oculist first claimed cures of strabismus by dividing the superior oblique tendon, but the validity of his claims has been questioned. At least the idea was his, and for that, credit is due. The amblyopia of the squinting eye which Bolton also recognized was first described by George L. Buffon in 1743. The earliest documentary evidence for attempting the tenotomy operation of the internal rectus used by Bolton was performed by Eschenbach (of Rostock) in 1752, and the procedure was performed by William Gibson (1788-1868) of Baltimore in 1818 with resultant divergence. However credit for success goes to Johann Friederich Dieffenbach (1793-1847) of Berlin who performed the procedure first in 1839. He considered the site of the defect to be peripheral in the muscle itself.

It is at this stage that Bolton's book appeared in print. I have had a number of other books of this period in my library for several years, and it is interesting to compare two of these with Bolton's ideas.

The first is John Walker's *The Philosophy of the Eye; Being a Familiar Exposition of its Mechanism and of the Phenomena of Vision with a View to the Evidence of Design,* Charles Knight & Co., London, 1837. One is struck by the frontispiece of this work that is, as I have already published, an unacknowledged and mercilessly altered copy of Zinn's beautiful illustration in his great *Anatomy of the Eye* (See figures 5 & 6).[13] In his description of the function of the extraocular muscles, Walker is compelled to express assurance that despite views to the contrary, the obliques must serve some useful purpose. What it is he does not state. The oblique muscles are depicted in another illustration inserting on the lateral side of the globe, under the lateral rectus instead of on the postero-lateral aspect of the globe as Bolton correctly describes. This error is emphasized in another drawing and in the text on page 213. Such faulty anatomical information would lead one to accept the oblique muscles as mainly inward rotators which they actually are not and thereby suggest attacking these muscles to relieve excessive inward rotation, i.e. convergent strabismus. Although giving an incorrect secondary inward action of the obliques, Bolton did not suffer from this error, but correctly directed his surgical attention to the medial rectus muscle.

The second work dated one year before Bolton's book is William Mac Kenzie's *The Cure of Strabismus by Surgical Operation,* Longman, Orme, Brown, Green, and Longmans, London, 1841 (An appendix to his *"Practical Treatise on the Diseases of the Eye"*). In this work, the author considered paralytic strabismus and the theory of de la Hire of eccentricity of the sensitive retina from the visual axis as being already disproved. Instead, Mac Kenzie, like Bolton, looked to the "brain and nerves, the organs which govern the associated actions of the muscles of both eyes", (p. 3) as the site of the cause of strabismus. He also mentioned, as does Bolton, the speck on the cornea that partially covers the pupil. In addition, he mentioned amblyopia of the squinting eye and as other causes, heredity, convulsions during infancy, imitation of a squinting per-

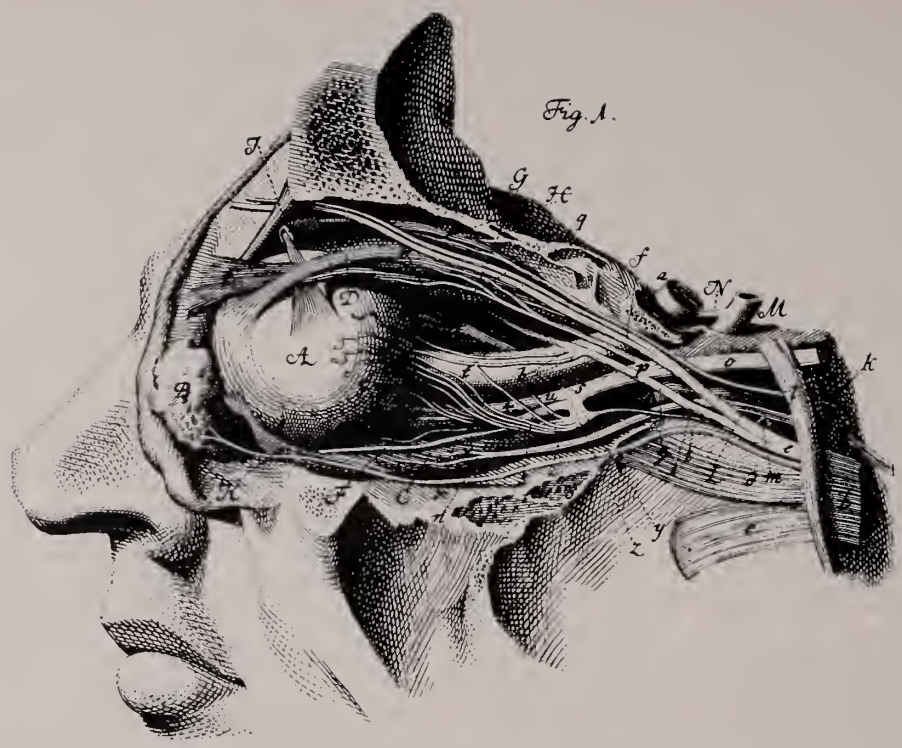
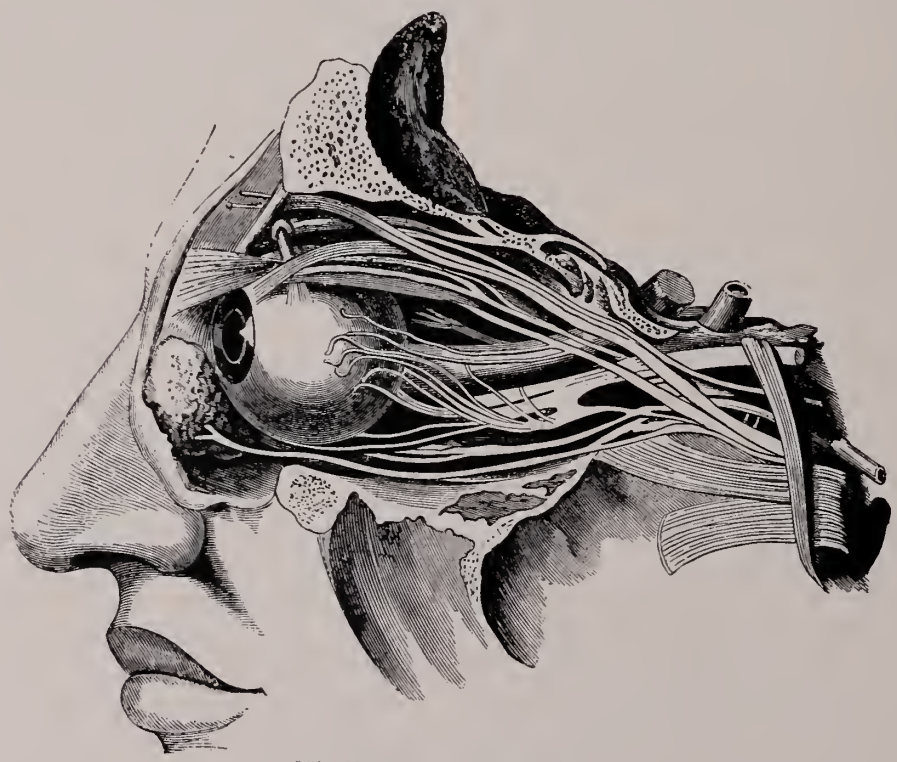


Fig. 5. Dissection of ocular muscles and nerves showing left eye rotated nasally. From Johann Gottfried Zinn's *Descriptio Anatomica Oculi Humani,* Vanderhoeck, Gottingae, 1755.



[The Nervous System of the Eye.]

Fig. 6. Copy (unacknowledged) of Zinn with incorrectly placed pupil resulting in gross misplacement of extraocular muscles. Note insertion of superior rectus at limbus and of superior oblique anterior to equator. From John Walker's *The Philosophy of the Eye,* Charles Knight, London, 1837.

son, measles and severe burns of the abdomen.

The operation described by Mac Kenzie is essentially the same as that of Bolton with the exception of Bolton's improvements.

Mac Kenzie mentioned what he called "Orthophthalmic practice" (p. 27) including "diverging practice" and "converging practice" especially by use of Wheatstone's Stereoscope invented in 1838, and this does not appear in Bolton's book.

Two other works (from the library of the Medical College of Virginia) give further insight into the then contemporary ideas of etiology of squint, and anatomy and physiology of the oblique muscles.

The first one of these is by James Wardrop entitled, *The Morbid Anatomy of the Human Eye,* 2 volumes, London, John Churchill, 1834. The following is taken from Chapter 48, p. 216, Vol. II:

Corneal speck may cause squint. "A squint may arise from various causes. It is sometimes produced from Chylopoetic derangement—from worms—from organic affections of the Encephalons—from dentition—from imitation or habit—from long position of the head in one posture—from the transparency of some of the parts of the eyeball being destroyed, or from a disparity in the vision of the two eyes."

Also mentioned is "Hooping-cough".

Bolton's work represents a considerable advance over Wardrop's book.

The second, *A Symposium of the Diseases of the Eye and Their Treatment to Which are Prefixed a Short Anatomical Description and a Sketch of the Physiology of that Organ,* by Benjamin Travers, F.R.S., Surgeon to St. Thomas Hospital, First American from the Third London Edition, New York, published by E. Bliss and E. White and H. C. Carey and I. Lea, Philadelphia, 1825, presents the following information: (page 25)

". . . The tendon of [the superior oblique muscle] emerging from it is enclosed in a ligamentous sheath to its insertion in the sclerotic coat, at the posterior and upper surface of the globe, beneath the superior rectus muscle.

"The inferior oblique . . . takes an oblique direction between the globe and rectus inferior [an error] to its posterior and outer surface, where it is likewise inserted into the sclerotic."

"The oblique muscles acting singly roll or rotate the eye in contrary directions. Their cooperation antagonizes that of the recti, which power is demonstrated by the course of the superior oblique, the origin of the inferior and their posterior insertions."

Remembering the close association of Dellafield as the editor of this work and as an associate of Bolton's teacher, Rodgers, it is likely that Bolton had the opportunity to study and improve on Traver's concept of the anatomy of the oblique muscles.

Certainly Bolton was a very early if not the earliest American surgeon of strabismus. It must be remembered that Bolton's book in America in 1842 refers to successful strabismus surgery performed by him in 1840 which is *only one year* after the first case performed in Berlin by Dieffenbach, who is known as the father of strabismus surgery.

Finally, it should be noted that Bolton, again manifesting his basically humanitarian character, invented a metal skeletal splint by fixing fractured bones in an effort to reduce the mortality and the amputations resulting from fracture wounds that were so prevalent in the Civil War. Schwartz has pointed out regarding his splint, that, ". . . The seed of James Bolton's new concept fell on the barren soil of pre-Listerian surgery." [14] This was not true however of his *Treatise on Strabismus* which was ". . . . widely commented upon and quoted both in this country and abroad." [15]

CONCLUSION

Bolton emerges as a conservative, serious and analytic mind, weighing causes and effects, always ready to discard the outmoded and always looking for ways and means to achieve success in terms of the patient's human as well as visual needs. We are grateful for the progress engendered by men like Bolton with progressive and original ideas who upheld the best medical tradition while fostering new solutions of difficult medical problems based on their more penetrating knowledge of underlying mechanisms. His book was a bright spot in an era of little originality.

APPENDIX:

Published Writings of James Bolton, M.D.

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A Case of Stillbirth. The Stethoscope I: 388.

Report of a Case of Caries of the Tibia. Amputation. The Stethoscope I: 492.

Case of Removal of Ramus of the Inferior Maxilla for Necrosis. The Stethoscope I: 507.

Report of a Fatal Case of Tetanus Following the Ligature of Haemorrhoids. The Stethoscope I: 662.

Fatal Injury to the Head, Trephining. The Stethoscope II: 495.

Test for the Safety Points in Anesthesia. The Stethoscope II: 681.

Purcell's Liquor Egotinae. The Stethoscope III: 478.

Report on Surgical and Philosophical Apparatus and Pursuits Connected with Medicine, Read to the 30th Annual meeting of the Medical Society of Virginia. July 1853. The Stethoscope III: 377.

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    ————: Test for the Safety Points in Anesthesia. The Stethoscope II: 681.
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801 West Franklin Street
Richmond, Virginia

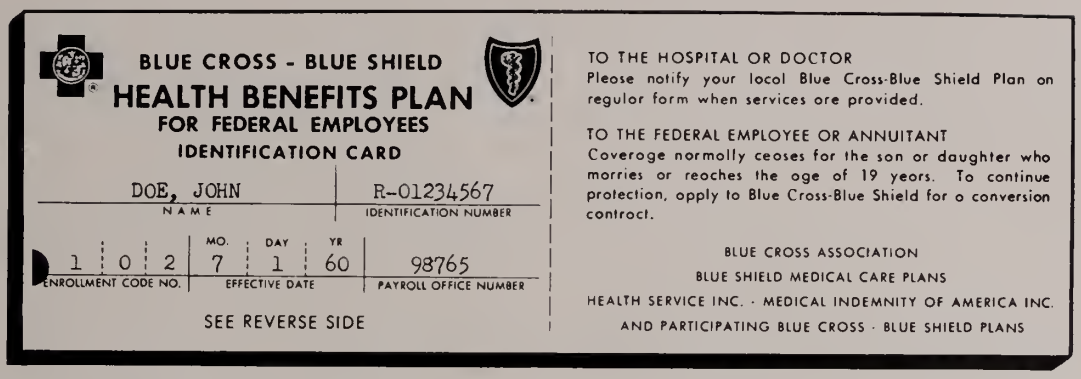
Closed Circuit TV

The Medical Society of Virginia will, for the first time, utilize closed circuit TV in connection with scientific sessions during the Annual Meeting.

This action is being taken in order that members can take full advantage of the facilities at the Virginia Beach Convention Center. In addition to the main meeting room seating in excess of 200, there are two smaller rooms in which, by using TV, members may view proceedings in a more relaxed atmosphere.

Pre-Paid Medical Care....

Edited by
RICHARD J. ACKART, M.D.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Federal Employee Enrollment

In September, 1959, Congress passed the Federal Employees Health Benefits Act (Public Law 382, 86th Congress). Subsequently, the Bureau of Retirement and Insurance—in cooperation with the Insurance Industry and Blue Cross-Blue Shield—developed the uniform programs that have been made available to all government employees nationwide. While the government, as an employer, is participating in the cost of the program, each employee was given complete freedom to enroll in the plan of his own choosing.

During the enrollment period which ended June 30, Government employees chose from among four types of medical care programs: (1) A Service Benefit Plan (Blue Cross-Blue Shield); (2) An Indemnity Plan (Aetna Insurance Co.); (3) Existing Employee Organization Plans (e.g, Postal Workers Union); and (4) Comprehensive "closed panel" Plans (e.g., Kaiser Health Plan, etc.). Although the final tally is not available at the time this article is being written, an interim report released by the Civil Service Commission indicates that Blue Cross-Blue Shield was about a two-to-one choice over the other plans.

As a consequence, the special Identification Card pictured above is being carried by thousands of Federal Employees in Virginia, and will denote their participation in the medical care program of their choice. As described below, Federal Employees who selected Blue Cross-Blue Shield also chose between a *High Option Plan* and a *Low Option Plan*. The Option selected is indicated in the Enrollment Code No. section of the card. The code numbers are: High Option—Single Person, 101; Family, 102 or 103. Low Option—Single Person, 104; 105 or 106. Particular attention should be given to these numbers because of the differences between the two Options.

The Identification Number is of major importance. It will be an eight digit number, preceded by the letter "R". Example: R-01234567.

The Payroll Office Number is included for government purposes only, and has no particular significance for identification or reporting purposes.

In establishing the requirements for approval of any given plan, the Civil Service Commission necessarily stipulated that there was to be a reasonable degree of uniformity of benefits (services covered) to assure all Federal Employees of similar coverage. Hence, the Virginia Blue Cross and Blue Shield Plans had to alter their usual arrangements to some extent. Not only did the Commission require both high and low option plans, which provide essentially the same benefits but differ in the amounts paid for covered services and in the cost to the government employee, but also it required that a "Major Medical" type of benefit be included to supplement the basic program. Each Blue Cross Plan in Virginia will handle the hospital admissions occurring in its operating area, but it was necessary to assign to Virginia Medical Service Association (Richmond Blue Shield Plan) the administration of Blue Shield for Federal Employees in the Roanoke area, and to assign to the Washington, D. C., Plans the administration of the "Major Medical".

As concerns Blue Shield for Federal Employees

it can be said that, with but very few exceptions, the *High Option Plan* (chosen by about 80% of Federal Employees selecting Blue-Cross-Blue Shield) is the same as VMSA's Comprehensive Contract and the *Low Option Plan* is the same as VMSA's Standard Contract. This statement is especially accurate as concerns the income limits to eligibility for the full-service benefits proffered by Participating Physicians and as concerns the fees paid to doctors. The most significant differences between usual Blue Shield (Richmond) coverage and the special Blue Shield coverage of Federal Employees, as stipulated by the Civil Service Commission, are in the list of exclusions. The special program does not provide for consultations; cosmetic surgery—other than as required by accidental injury occurring after the effective date of membership; diagnostic x-ray examinations performed in doctors' offices—other than for accident cases; nor normal nursery care of newborn infants.

Supplemental (Major Medical) Benefits are available to Federal Employees for certain services which are not included in the basic Blue Cross-Blue Shield coverage. Under the *High Option Plan,* after the member has paid $100 for services not provided for by his basic Blue Cross-Blue Shield, the Major Medical Plan will pay 80% of the charges made for just about all medical expenses up to $20,000 (but no more than $10,000 in one twelve months period). Under the *Low Option Plan* the deductible is $200, the extent of coverage is 75%, and the maximum is $5,000 (but no more than $2,500 in one twelve months period).

Covered Major Medical services include home and office calls, consultations, services of assistant surgeons, prescription drugs, nursing service, diagnostic procedures, prescribed appliances, and ambulance usage. Not covered by the Major Medical, however, are cosmetic surgery; dental services—except those required by an accidental injury occurring after the effective date; out-patient care of tuberculosis; out-patient care of mental and nervous disorder—except under the High Option Plan which provides for 50% coverage of such care.

Services covered under the Basic High and Low Option Blue Shield Plans should be reported directly to Virginia Medical Service Association on the regular Physician's Service Report Form. The Federal Employee's Identification Number must be entered in the "Contract Number" space. Please—always give the entire Identification Number including the "R" prefix. Payment will be included on regular Blue Shield vouchers.

For services that come under the Major Medical Plan, physicians need not report care which is not covered by the basic plan, but should bill the patient directly. It is the member's responsibility to submit a special "Major Medical Claim Form" and itemized statements and receipts. He may secure the necessary forms from the Blue Shield office. In this regard, a doctor will help his patient if his bills to him are itemized and include all dates and a brief diagnosis. Payment under the Supplemental Benefits portion of the program will be made out of Washington directly to the members.

This description of the Federal Employee program necessarily has been relatively cursory and has omitted reference to contractual provisions which, in given cases or situations, may be applicable. Virginia Medical Service Association personnel stand ready to assist physicians with any administrative problems that may arise from their care of Federal Employee patients.

Wednesday Morning, October 12

Dr. R. B. Robins, Member of the Board of Trustees of the AMA and one of the most popular speakers to ever visit Virginia, will highlight the Wednesday morning session of the 1960 Annual Meeting. Members are urged to attend this session which, in addition to the dynamic Dr. Robins, will feature Dr. William Parson and Dr. W. T. Thompson, heads of their respective departments at the University of Virginia and Medical College of Virginia. Sessions featuring speakers of this caliber deserve turnouts of "SRO" proportions.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Zoonoses of Importance to Virginians—
(*Continued*)

While the established and historically interesting zoonoses continue to plague us sporadically, a number of adaptations are occurring.

Canine Viral Hepatitis now appears to be pathogenic for man. Studies on this are limited to very small numbers so that no definite conclusions can yet be drawn but at least two confirmed cases have occurred.[1]

The first recorded occurrence of spontaneous Chicken Pox infection in any animals, other than man, was reported in March, 1960, from the San Diego Zoo.[2] Three young Anthropoid apes, exhibited in close contact with the public and used frequently in children's parties at the zoo as well as for exhibitions, theater openings, and charity shows, showed signs, symptoms and lesions typical of the average case in man. No laboratory examinations were done; however, a pediatrician was called for consultation and confirmed the diagnosis.

Q Fever is by far the most interesting rickettsial type of animal disease spread to man. In a recent study users of raw milk showed an incidence of this disease ten times that of consumers of pasteurized products. Since the vat pasteurization temperatures have now been adjusted to destroy these organisms, the number of consumers of raw milk having this disease would probably result in a ratio greater than 10 to 1. We know this disease exists in our livestock population in Virginia but its presence in our human population so far has gone unreported. The complement-fixation test remains the diagnostic procedure of choice.

Psittacosis has caused concern from time to time in Virginia. The duck farm outbreak at Urbanna was characteristic of the usual epidemic occurrence of the virus. The control in large flocks may be aided in the future by the recent discovery of an agglutination test utilizing either capillary tubes or slides. This test is simpler and less costly than the complement-fixation test and is practical for large-scale use. It is now being evaluated under field conditions. Until its perfection, however, the status of Psittacosis as an industrial disease of workers handling poultry must be taken into account by physicians practicing in endemic areas.

Eastern Viral Encephalitis (the word "Equine" has recently been dropped) bordered Virginia last year, but no human cases were reported. A small outbreak in horses in the Tidewater area was quickly brought under control by vaccination of all susceptible animals in the area. The role of migrating birds in harboring the virus is being stressed *less* now as attempts are being made to ascertain whether the mosquito might not be the winter reservoir. An outbreak of this disease in Virginia has been predicted for this summer. The high population of susceptible birds, a bumper crop of mosquitoes (Culisata melanura) and a hot, wet season last year suggest the possibility of a 1960 outbreak in this area.

Salmonellosis, which has probably the widest host spectrum of any disease, has been a very common resident of Virginia. The potential host role of domestic poultry should always be considered, as should swine, which have the highest prevalence among slaughtered animals, and dogs, which have been recognized in recent years as important carriers.

In the United States prior to 1950, the only types of leptospiral infections recognized in humans were the classic Weil's disease due to Leptospira icterohemorrhagiae and "Canicola Fever" caused by L. canicola. Since then a number of other serotypes of leptospires have been recognized as the cause of human illness, and careful studies have shown that various ones can be isolated from a variety of clinical syndromes of differing severity. In the clinical picture today, jaundice and severe renal damage are unusual. The diagnosis of leptospirosis should be considered in any patient with an acute illness characterized by headache, myalgia, fever, chills and conjunctival suffusion and in any patient in whom "aseptic meningitis" develops following an acute febrile illness of five to seven days duration.[3]

A study of twelve cases of leptospirosis at the

This paper was presented before the Health Directors' Section of the Virginia Public Health Conference, Roanoke, Virginia, May 19, 1960, by Martin B. Marx, D.V.M., M.P.H., Public Health Veterinarian of the Virginia State Department of Health.

Veterans Administration Hospital at McKinney, Texas disclosed three salient features:

1. Different serotypes produced the same mild disease.
2. The clinical course can be divided into two distinct phases and
3. Manifestations in the first stage of leptospirosis are due to leptospiremia, while those in the second stage appear to be the consequence of the body's immunologic response.[3]

The greatest danger of infection in man is from contact with stagnant water to which wild or domesticated animals have access. The primary source of the disease in man is contact, direct or indirect, with urine from animals in the acute stage of infection or, more frequently, a carrier animal showing no clinical evidence of infection.[4]

The serotypes of most importance to man are L. canicola, the type usually found in dogs, L. pomona, of cattle and swine, and L. icterohemmorrhagiae, of rats. Most of the human cases reported in Iowa in recent years have been due to the cattle and hog type. A paper to be presented to the A.V.M.A. this summer will point out the high prevalence of clinical cases in Iowa farmers who come in daily contact with hogs.

Of 11,000 serum samples from cattle, swine and dogs tested last year by the Virginia Department of Agriculture over 3000 showed positive titers to one or more serotypes of Leptospira. Unquestionably our Virginia domestic livestock harbor the infection.[5]

Our packing house workers may be considered a high risk group for this disease and serological surveys of these persons for Leptospirosis and Brucellosis could and should be carried out to determine that risk. Our State Laboratory now has personnel trained to carry out the necessary serological work to accomplish such a survey.

It is an interesting fact that a Nebraska court recently held that Leptospirosis is *not* an occupational disease and therefore is *not* compensable under workman's compensation. So we find that the uninformed continue to regard this condition as extremely rare and transmissible only through rat urine.

These, then, are some of the zoonoses which seem to be of most importance to Virginians. As has been shown, constant adaptation is occurring in the enemy camp. Our vigilance must remain acute to these changes. It is not possible, nor is it even practical, for man to attempt to remain healthy in the midst of a diseased animal population. Though we may not like to admit it, we have borrowed most of our social heritage from the rest of the world; let's refuse to borrow the zoonoses from our domestic and wild animal population.

Before leaving the zoonoses notice should be taken of another important fact: the threat of Biological Warfare, which focuses our attention on them to an even greater degree. The use of Anthrax spores, Tularemia, Psittacosis, or Brucellosis organisms as possible agents disseminated through aerosol mists could present differential diagnostic problems to our medical personnel. Many of these diseases might be introduced first through our domestic animal populations, thereby seriously handicapping our economy and endangering human life. If antibiotic-resistant strains were used the problem of control would become further complicated.

Recent experiments with the Q fever organisms have shown that aerosol containing these rickettsia travels many miles in a matter of hours to infect all animals and man inhaling the mist.

Clostridium botulinum poisoning has been shown to occur following inhalation of the organisms from aerosol droplets.

The practicing veterinarian might quite logically be the first medically trained individual to meet with and identify such airborne invasion. Many types of medications, particularly injectable and topical antibiotics, ophthalmic ointments, and narcotics are stocked in all veterinary offices and should be considered in local surveys of available supplies, along with x-ray facilities, anaesthetics, oxygen, and two-way radio communications which are frequently found.

The veterinarian should be included in County Medical Society meetings to offer a current appraisal of the epizootic status of the community, to give his advice concerning the zoonoses, and to assist in maintaining effective vigilance.

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Current Currents

PHYSICIANS IN PUBLIC AFFAIRS: With the national elections almost upon us, it seems particularly fitting that physicians give careful consideration to the following resolution adopted by the AMA House of Delegates during its meeting in Miami:

WHEREAS, It has become apparent that the medical doctors in America and their organizations are still not exerting the effective influence on local, state and national political affairs which it is their right and obligation; and

WHEREAS, Many problems of a medical nature and otherwise are of vital concern to the nation and its citizens, and require a concerted attempt at effective solution;

NOW THEREFORE BE IT RESOLVED, That the American Medical Association encourage its members to take a greater interest in public affairs;

NOW THEREFORE BE IT RESOLVED, That the individual members of the American Medical Association, as private citizens, take a more active part in the local, state and national government endeavoring to select qualified candidates for office, regardless of party affiliation of such candidates; and that the individual members of the Association work toward the creation of policies which preserve representative government, free enterprise, fiscal solvency and the integrity of the dollar;

AND BE IT FURTHER RESOLVED, That the component medical societies of the American Medical Association be encouraged to further this program on the local level.

BLUE SHIELD LUNCHEON: The Virginia Medical Service Association plans to have a luncheon meeting of its participating physicians on Tuesday, October 11, at Virginia Beach. Although final arrangements have not been completed as this issue of Current Currents goes to press, it is planned to include them in the Official Annual Meeting Program to be sent all members around the last of September.

Another luncheon meeting is planned by the Virginia Section, American College of Chest Physicians for Monday, October 10 and the exact time and location will appear in the Official Program.

NEW MEDICAL SCHOOLS: Seven new medical schools are currently in the planning stage and another will accept its first freshman class this fall. New schools are planned for Texas, California, New Mexico, Minnesota, Idaho, Arizona and New York.

The newly completed University of Kentucky Medical Center in Lexington is all ready to welcome its first 50 students this September.

A MATTER OF ETHICS: There remains much confusion among physicians and laymen concerning the ethics of publicizing medicine's good deeds. For example, can a

line be drawn between publicity which informs the public of medical advances and contributions to community life, and unethical publicity-seeking which gives certain physicians unfair advantage over their colleagues? John L. Bach, Director of Press Relations for AMA, recently cleared up much misinformation on the whole question of medical ethics as it relates to publicity.

According to Mr. Bach, the crux of the whole ethics problem as it relates to publicity can be found in a Judicial Council interpretation of medicine's Code of Ethics, which delegates final responsibility for all medical publicity in any area to the county medical society. He states that "The county society is the best judge because it is familiar with all the circumstances; it knows the men and institutions involved; and it can resolve the problem in the shortest possible time."

COMPONENT SOCIETY ACTIVITIES: A survey of nearly 1200 organized county medical societies throughout the country has been completed by AMA, and many of the findings are quite interesting. The survey shows that well-known speakers are still top attendance getters at meetings for both large and small societies, with "prestige-speakers" from other areas of the country preferred by some. A growing number of societies seem to favor meetings devoted to discussion of socio-economic problems as well as scientific seminars.

Seven hundred and seven county societies have an established system for handling complaints from the public involving individual physicians or the profession as a whole. These systems or committees have such titles as grievance, mediation, ethics, professional relations, etc., but all serve the same purpose of providing a sounding board for grievances which cannot be resolved on an individual basis. The majority of these societies report that their committees handle all types of disputes of a medical nature, rather than fee disputes alone. It is interesting to note that 25 percent of those societies having grievance committees make full use of their public relations by letting the public know about their activities via press, pamphlets, TV or radio.

Nearly half of the societies report some type of formal emergency call plan operating on either county-wide or city-wide basis. Only about 25 percent of these plans are society owned or sponsored, the rest relying on commercial telephone answering services for the most part. Societies with no emergency call plans usually handle such calls by means of informal arrangements among individual physicians or by utilizing the local hospital as contact center for emergency calls. These methods are particularly suited to smaller societies.

ATTEND YOUR ANNUAL MEETING—ALL OF IT!

CHECK THE WEDNESDAY MORNING PROGRAM

Mental Health....

MARJORIE H. KIRKLAND

Treatment and Prognosis of Mental Retardates

A study was recently done in Altoona, Pennsylvania, of the adjustment of adults who had, as children, attended the special classes in operation for over 40 years in the public school system. More than 1500 people had been enrolled prior to the time of the study. One hundred of them were interviewed in their homes by the author in order to observe the family living conditions and to secure a description of the subjects. The 100 subjects had an IQ range from 50 to 85; the chronological age range was 19 to 36 years.

1. Sixty-five per cent of the eligible males had been in the armed services, where, as a group, they had achieved promotions, been assigned responsible duties, and had had experiences in foreign service and combat. This percentage is comparable to the national average for acceptance into the armed services.

2. Wages ranged from $365 to $7,800 per year. This range included two part-time workers.

3. Forty-two per cent of the group had an annual income greater than the current Pennsylvania salary paid to a beginning teacher who is a graduate of a four-year college training program—$3,600.

4. Fifty-five per cent of the group were married. Divorces were apparent in only 3% of the cases (all women). The spouses of these married subjects represented a more intelligent (mean IQ 95.4) and highly educated group than the subjects, in that 51% were high school graduates and another 29% had attended one or more years of high school. Only two spouses had attended special classes.

5. The married subjects had a total of 79 children, or an average of 1.5 per family. Only one of the 55 families had five children and none had more than five. (So much for the idea that these people produce large families as a rule.) Mean IQ of the children was 101.8, and only one child had an IQ below 85 which was the maximum for the retarded adults.

6. Eighty-two per cent of the group were entirely self-supporting.

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Approved for publication by Commissioner, Department of Mental Hygiene & Hospitals.

One of the conclusions of the study was that occupational success is not highly related to differences in intelligence but is a reflection of desirable personal characteristics possessed by the retarded worker. It also indicates that retardation is a function not only of the individual, but also of his circumstances. Other studies corroborate the conclusion that many cases of retardation lose their problematic aspects once the individual gets beyond school age.

In connection with the encouraging findings of the Altoona study, it might be well to remember that the mildly retarded are by far the most numerous of the retarded. The moderately and severely handicapped represent only a very small per cent of the population.

But what of the more seriously handicapped? As experience of educators, physicians, social workers and rehabilitation counselors grow, they are coming more and more to recognize that much can be done to habilitate many of the so-called moderately retarded. Special techniques and materials, much individual attention, opportunities for success, and individualized work placements can make many of these at least partly independent and certainly happier members of the community.

Rehabilitation of the moderately retarded may require special skills, knowledge and equipment, but there is much that any family can do to further their retarded child's growth provided they are sympathetically and realistically oriented toward him. One is to treat him as they would a normal child of similar mental development, allowing for greater freedom in those areas in which he is most proficient. Parents are often particularly concerned about discipline, and many make the mistake of failing to provide any at all because of their concerns about the child's inability to understand. Actually, discipline is just as important for these children, and can have similar results, both good and bad, depending on how it is administered. The only difference is that these children usually require extra doses of praise to offset the large amounts of failure they experience.

Communities need to develop a variety of services for these children—not only educational but recreational, medical, and counseling. By and large, the

medical facilities are fairly adequate, and of course this is the first kind of therapy to consider in the case of organically handicapped children. The educational needs are gradually being recognized and provided for in more and more communities. Special classes for those of varying degrees of intelligence and age levels not only provided formal education in the narrow sense but also help meet the social needs of the children. Recreational programs, and summer day and boarding camps are all too rare, as are a speech therapy, physiotherapy, and vocational training program. Some communities are developing programs in which the children go to school full time for at least eight years; then they move into the secondary program which is quite different from the usual academic program. In this the youngsters go to school half a day, discuss problems such as social security regulations, filling out application forms, their feelings about their handicaps, and in general gain support from the other members of the class. The rest of the day they work on a job. The supervisors of the job work closely with the classroom teacher in order to make the school work as practical as possible.

This and other new programs hold some promise for the brighter future, but there is still one serious lack in most communities—that of counseling for the child and his family.

A plea has already been made for the application to the problems of these families and patients of the same principles which guide the treatment of other mental hygiene problems. In the first place, advice does not solve these families' problems. A family which is not willing to part with their child will receive little if any benefit from categorical recommendations which do not take into account their own needs, and those of the particular child. In the second place, there are myriad secondary problems with which the families may need help; such as their recognized or repressed guilt about having produced a defective child, questions about the advisability of having further children, marital problems which result from the parents' feelings about the child, guidance with regard to the various stages of development, and the use of all available necessary community resources, to name only a few.

Most agencies would recognize their responsibilities to the parents, but very few, as yet, know how much direct counseling can be done with many of the defectives. Defectives are capable of making relatively normal relationships. Why, then, is the psychiatrist's or social worker's main tool—relationship—considered inappropriate for use with these cases? Techniques have to be modified. Goals may be limited. Complicated ideas and big words cannot be used. But these statements are also true of the normal child's treatment. Defectives are not entirely without ego strengths, by any means, and these strengths can be used. Most of the mildly retarded can recognize cause and effect, and can change behavior on the basis of clearer understanding. Suggestions may need to be more concrete; the worker may have to be more directive at times (but beware of aggravating dependency patterns), but growth can be made. More especially, the retardate who finds that he is respected is more likely to earn that respect.

It is a temptation for workers counseling retarded delinquents who are to be or have been sent to institutions to gloss over the delinquent acts of the child, and claim that he was sent for "training". This failure to face and deal with reality is no more therapeutic for these children than for their brighter friends. They know, and we know, that in all likelihood they would still be at home had they not got into trouble with the law. They must be helped to deal with this and the causes behind it. After that, the problem of why they were sent to an institution for the retarded rather than to an industrial school can be handled.

They know they are different, no matter what the defenses they use to hide it. We cannot consider that we have done a thorough job of casework until we have helped them look at their own self-image, and assess the accuracy of it.

In other words, retardates have the same kinds of problems as other people do, because they are primarily people, who only incidentally have the symptom complex of retardation.

Whatever the cause of the retardation, the retardates' problems are not more easily solved than are the problems of other clients. Institutionalization, special classes, private school, foster home—whatever the plan, it needs to be arrived at after a consideration of the *total* child in a *total* family in a particular community.

References

Dinger, Jack C., Ed.D.: Post school adjustment of former special education pupils with implications for curricular revision. Unpublished study. Altoona, Pennsylvania.

PRELIMINARY PROGRAM

113th MEETING

The Medical Society of Virginia

THE CAVALIER
VIRGINIA BEACH
October 9-12

PRELIMINARY PROGRAM

113th Meeting

THE MEDICAL SOCIETY OF VIRGINIA

The Cavalier

Virginia Beach, Virginia

October 9-12, 1960

Sunday, October 9

1:00 P.M.

COUNCIL

Cavalier

7:00 P.M.

House of Delegates—Dinner Meeting

Cavalier Room—Cavalier

Monday Morning, October 10

9:00 A.M.

Convention Center

Welcome and Preliminary Announcements—Mallory S. Andrews, M.D., Chairman, Local Committee on Arrangements

Memorial Observance

Scientific Program

Robert S. Hutcheson, Jr., M.D., Roanoke, Presiding

9:15 A.M.—The World of the Autistic Child—Faith F. Gordon, M.D., William M. Lordi, M.D., and Jacob Silverberg, M.D., Richmond

In the past twenty years our attention has been invited increasingly to the syndrome variously called infantile autism and a typical psychoses. The purpose of the paper is to review the symptomatology, the family configuration and to advance some ideas on some of the apparent causative factors.

9:30 A.M.—Experiences with 1000 Pediatric Surgery Out-Patient Clinic Visits—Edwin I. Smith, M.D., Norfolk

An analysis of the presenting complaints and problems is made. The diagnosis and treatment of the more common complaints is discussed in the light of this experience. Particular emphasis is given to problems connected with superficial infections, anal fissures with constipation, obscure abdominal pain, umbilical and inguinal hernias.

9:45 A.M.—Premature Craniosynostosis: A Report of Cases—Franklin L. Angell, M.D., John A. Martin, M.D., and Edgar N. Weaver, M.D., Roanoke

During the period of September, 1958, until March, 1960, careful examination of newborns, infants and children revealed the presence of varying degrees of craniosynostosis in twenty cases, but twelve of these cases have undergone successful surgery. Clinical photographs, x-rays and brief summaries of the case histories will be presented and a new technique to differentiate positionally flattened heads from those deformed by craniosynostosis will be presented.

10:00 A.M.—Phenylketonuria—McLemore Birdsong, M.D., Charlottesville

10:15 A.M.—Surgical Aids in Diagnosis of Lung Disease—Levi Old, Jr., M.D., Norfolk

Since the advent of antituberculosis drugs, steroids, cancer chemotherapy, etc., it behooves the physician to make an accurate diagnosis of bilateral diffuse pulmonary diseases. Certain surgical procedures, such as bronchoscopy, prescalene fat pad excision, and lung biopsy, are valuable in the diagnosis of these conditions. An outline for workup and diagnostic evaluation of diffuse bilateral pulmonary disease cases is presented with slides to illustrate the various indications and techniques.

10:30 A.M.—*Guest Speaker*—G. W. H. Schepers, M.D., Wilmington, Delaware — Pulmonary Changes Incident to Occupational Exposure to Fumes, Gases, and Dust.

11:00 A.M.—Intermission to visit Exhibits

11:15 A.M.—Congenital Absence of the Va-

GINA AND ITS CORRECTION—Randolph H. Hoge, M.D., Richmond

This paper deals very briefly with the embryology involved in the formation of the female genital tract and then discusses the congenital anomaly of absence of the vagina. A historical review is made in which the various methods of treating this condition are discussed.

11:30 A.M.—CLINICAL ASPECTS OF AMNIOTIC FLUID EMBOLISM—William E. Josey, M.D., Norfolk

Four cases that have occurred in Norfolk hospitals are presented briefly to illustrate the clinical range of this obstetrical accident from sudden maternal death as a result of overwhelming embolization to sublethal embolization with survival. In the latter case the diagnosis is based on the clinical picture as well as pathologic evidence of amniotic fluid infusion into the maternal circulation. Clinical implications are discussed.

11:45 A.M.—SIMPLE TREATMENT OF THE INCOMPETENT CERVICAL OS—Meyer Vitsky, M.D., Richmond

The paper discusses the mechanism involved in the repeated abortions of this etiology and suggests that the common Smith-Hodge pessary properly used could well be a deterrent. Four case histories of patients with repeated miscarriages preceded by the characteristic phenomena of the Incompetent Cervical Os are reviewed.

12:00 Noon—*Guest Speaker*—Lawrence L. Hester, Jr., M.D., Chairman of Obstetrics and Gynecology, Medical College of South Carolina, Charleston, South Carolina—THE POSITIVE CYTOLOGICAL CERVICAL SMEAR.

Monday Afternoon, October 10

See special section on luncheons, committee meetings and special events.

2:30 P.M.

Reference Committee

Convention Center

3:00 P.M.

Medical Motion Pictures

Convention Center

1. Special Presentation.

   One Stage Surgical Repair of Hypospadias—C. J. Devine, Sr., M.D., C. J. Devine, Jr., M.D., P. C. Devine, M.D., C. E. Horton, M.D., and H. H. Crawford, M.D., Norfolk

2. Symposium on Trauma.
   - A. Treatment of Simple Head Injuries.
   - B. Treatment of Thoracic Injuries.
   - C. Acute Abdominal Injuries.
   - D. Emergency Surgery of the Acutely Injured.

7:00 P.M.

Cocktail Party

Pool Loggia—Cavalier

8:00 P.M.

Banquet

Cavalier and Colonial-Virginia Rooms

Presentation of Fifty Year Club Awards

Awarding of Prizes—Golf Awards, Door Prizes.

Presidential Address of W. Allen Barker, M.D.

Installation of Guy W. Horsley, M.D., as President.

Tuesday Morning, October 11

9:00 A.M.

Convention Center

Russell Buxton, M.D., Newport News, Presiding

9:00 A.M.—THE DIAGNOSIS AND TREATMENT OF FACIAL FRACTURES—Jerome Adamson, M.D., Hugh H. Crawford, M.D., and Charles E. Horton, M.D., Norfolk

This paper will discuss the early diagnosis and treatment of fractures of the nose, zygoma, maxilla and mandible. Since these fractures are very common, and may be easily missed after trauma, it is important that every general practitioner know the principles of diagnosis and the outline of treatment. This talk will be illustrated by many slides showing each condition and the procedures necessary to allow correct healing.

9:15 A.M.—CURRENT THERAPY OF PNEUMOTHORAX—Armistead M. Williams, M.D., Richmond

Spontaneous pneumothorax and traumatic pneumothorax are frequently encountered conditions which have undergone changes in method of therapy over the past two decades. Bed rest and reabsorption of the air by the slow natural process, with occasional aspiration by syringe and needle, has been accepted treatment in the past and is still practiced by some physicians. Closed thoracotomy, utilizing a soft rubber catheter and suction apparatus is much to be preferred. For recurrent pneumothorax surgical resection and pleural symphysis are indicated in most cases.

9:30 A.M.—Mesenteric Vascular Occlusion: A Diagnostic and Therapeutic Challenge—Yale H. Zimberg, M.D., Richmond

Progress in arteriography, vascular surgery and post operative metabolic management has helped to refocus attention on the diagnostic and therapeutic aspects of mesenteric vascular occlusion, an illusive condition with an appalling mortality. Pertinent clinical and anatomical findings are reported with a comparative review of the literature and a discussion of available therapeutic procedures.

9:45 A.M.—Recurrent Cancer of the Head and Neck—C. C. Coleman, Jr., M.D., Charlottesville

Cancers of the head and neck destroy form and function because of their local invasive characteristics. It is our intention to present typical cases of recurrent cancers in various parts of the head and neck and to demonstrate the methods of treatment. The reconstruction of these patients is included as an inseparable part of the tumor therapy.

10:00 A.M.—Carcinoma of the Colon and Rectum—J. Shelton Horsley, III, M.D., Richmond

This is a review of approximately 200 cases of carcinoma of the colon and rectum. They are broken down as to location, duration of symptoms, symptomatology, etc., and analyzed for five and ten year cure rates. Discussion of recent advances and what they have to offer in diagnosis and treatment is given against this background.

10:15 A.M.—The Management of Moles and Melanomata—William R. Nelson, M.D., Richmond

Office diagnosis of moles and melanomas is stressed and the treatment of patients with multiple lesions of the former type outlined. The importance of location of pigmented nevi in relation to the more dangerous forms is pointed out and the significance of histopathologic analysis of all excised lesions discussed. The juvenile and malignant varieties of melanoma are differentiated and the need for removal in childhood of certain pigmented lesions enlarged upon.

10:30 A.M.—Carcinoma of the Breast—J. M. Emmett, M.D., and Edward Lowicki, M.D., Clifton Forge

The six year personal experience with 65 consecutively treated cases of carcinoma of the breast between 1948 and 1954 is reviewed. The follow-up rate has been 100%. An over-all five year survival rate of 68% for those treated with radical mastectomy and a surgical mortality of 1.5% form a salient part of the data presented.

10:45 A.M.—Intermission to Visit Exhibits

SYMPOSIUM ON ENDOCRINOLOGY

11:00 A.M.—*Guest Speakers*—George F. Cahill, Jr., M.D., Harvard Medical School, and J. Hartwell Harrison, M.D., Harvard Medical School, Boston, Massachusetts—The Diagnosis and Treatment of Adrenal Disorders

11:30 A.M.—*Guest Speaker*—Frederic C. Bartter, M.D., Chief, Section on Clinical Endocrinology, National Heart Institute, Bethesda, Maryland—Aldosterone Metabolism

12:00 Noon—*Guest Speaker* — Lawson Wilkins, M.D., Professor of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland—The Adrenogenital Syndrome

12:30 P.M.—Question Period—William Parson, M.D., Professor and Head of Department of Internal Medicine, University of Virginia Medical School and Hospital, Charlottesville, Moderator. George F. Cahill, Jr., M.D., Boston; Frederic C. Bartter, M.D., Bethesda; Lawson Wilkins, M.D., Baltimore and H. St. George Tucker, Jr., M.D., Richmond

1:00 P.M.—Recess for Lunch

Tuesday Afternoon, October 11

2:30 P.M.

Convention Center

Mallory S. Andrews, M.D., Norfolk, Presiding

2:30 P.M.—The Evolution of the Diagnosis of Coronary Artery Disease—M. M. Pinckney, M.D., Richmond

History of diagnosis of coronary artery disease is traced from Herrick's original paper, through experimental EKG studies of Smith, Pardee, and others, to modern techniques with slides of their original EKG.

2:45 P.M.—The Thyrocardiac—Problems in Diagnosis—Guy Hollifield, M.D., William Parson, M.D., Charlottesville, and K. R. Crispell, M.D., New York

Modern techniques for studying thyroid function have made it possible to demonstrate thyrotoxicosis in patients with major cardiac symptoms who have few overt symptoms of hyperthyroidism. We have studied sixty such patients. This report will summarize the problems involved in establishing a diagnosis of hyperthyroidism in these patients in terms of current concepts of thyroid physiology.

3:00 P.M.—The Treatment of Acute Pulmonary Edema—Harry Walker, M.D., and Reno R. Porter, M.D., Richmond

The purpose of this paper will be to evaluate the usual therapeutic measures used in this condition and to evaluate each as to its usefulness.

3:15 P.M.—*Guest Speaker*—Wallace E. Herrell, M.D., Lexington Clinic, Lexington, Kentucky—Erythrocillin: A New Approach to the Problem of Antibiotic-Resistant Staphylococcal Infections.

4:00 P.M.

Medical Motion Pictures

Convention Center

Symposium on Diagnosis in Cancer, sponsored by the Virginia Division, American Cancer Society.

1. Oral Cancer: The Problem of Early Diagnosis
2. Moles and Melanomas

4:00 P.M.

House of Delegates

Convention Center

9:00 P.M.

Dancing and Entertainment

Cavalier Room—Cavalier

Wednesday Morning, October 12

9:30 A.M.

Convention Center

Robert S. Hutcheson, Jr., M.D., Roanoke, Presiding

9:30 A.M.—Carcinoma of the Pancreas: A Diagnostic Problem—Benjamin B. Weisiger, M.D., and James O. Burke, M.D., Richmond

Fifty patients with carcinoma of the pancreas have been studied. Those features of the case, present at the time of their first hospital admission, are emphasized in an attempt to arrive at an earlier diagnosis in this frequently obscure disease. The recent use of the serum leucine amino peptidase in a few cases will be touched upon. The discouragingly short clinical course is discussed.

9:45 A.M.—Cerebral Mucormycosis—Albert J. Wasserman, M.D., Irving N. Sporn, M.D., and William S. Sheils, M.D., Richmond

All 28 reported patients have had serious concurrent illnesses, especially acidosis. The three cases herein reported occurred in ketotic diabetics, showing the classical symptoms of proptosis, ophthalmoplegia, and an eschar. The two with internal carotid occlusions died, the diagnosis being confirmed by biopsy or autopsy. The survivor had cranial involvement but no definite evidence of cerebral infection.

10:00 A.M.—*Invited Speaker*—W. T. Thompson, Jr., M.D., Professor and Chairman, Department of Medicine, Medical College of Virginia, Richmond—Serum Proteins in Clinical Medicine

10:30 A.M.—*Invited Speaker*—William Parson, M.D., Professor and Head of Department of Internal Medicine, University of Virginia, Charlottesville—The Medical Implications of Population Explosion

11:00 A.M.—*Guest Speaker*—Cynthia N. Warren, Director, Health Careers Program, Virginia Council on Health and Medical Care, Richmond—The Recruitment Program of the Virginia Council on Health and Medical Care.

11:15 A.M.—*Guest Speaker*—R. B. Robins, M.D., Member, Board of Trustees, American Medical Association, Camden, Arkansas

SPECIAL EVENTS

Sunday, October 9

Virginia Academy of General Practice, Board of Directors, The Cavalier—10:00 A.M.

Council Meeting, South Porch, The Cavalier—12:30 P.M.

Virginia Society of Anesthesiology, Luncheon, Directors Room, The Cavalier—12:30 P.M.

Cancer Committee, The Cavalier—4:00 P.M.

House of Delegates, Dinner Meeting, Cavalier Room, The Cavalier—7:00 P.M.

Monday, October 10

Virginia Academy of General Practice, Luncheon, Cavalier Room, The Cavalier—1:00 P.M.

Virginia Diabetes Association, Breakfast, South Porch, The Cavalier—8:00 A.M.

Virginia Section, American College of Physicians, Luncheon, Colonial Virginia Room, The Cavalier—1:00 P.M.

Virginia Society of Internal Medicine—will hold meeting in Colonial Virginia Room immediately following luncheon meeting of Virginia Section, American College of Physicians.

Virginia Society of Ophthalmology & Otolaryngology, Luncheon, Directors Room, The Cavalier—1:00 P.M.

Virginia Obstetrical & Gynecological Society, Luncheon, South Porch, The Cavalier—1:00 P.M.

Virginia League of Planned Parenthood Medical Advisory Committee—will meet on South Porch, The Cavalier, following luncheon of Virginia Obsetrical & Gynecological Society.

Virginia Society of Plastic and Reconstructive Surgery, Luncheon, Garden Porch, The Cavalier—1:00 P.M.

Virginia Urological Society, Luncheon, Cape Henry Room, Sir Walter—1:00 P.M.

Virginia Pediatric Society, Luncheon, Raleigh Room, Sir Walter—1:00 P.M.

Virginia Surgical Society, Luncheon, Main Dining Room, Sir Walter—1:00 P.M.

Virginia Section, American College of Chest Physicians, Luncheon—1:00 P.M.—Plans to be announced.

Reference Committee, Convention Center—2:30 P.M.

The Medical Society of Virginia, Cocktail Party, Pool Loggia, The Cavalier—7:00 P.M.

Banquet, Cavalier Room, The Cavalier—8:00 P.M.

Tuesday, October 11

Virginia Orthopedic Society, Luncheon, Princess Anne Country Club—1:00 P.M.

Virginia Radiological Society, Luncheon, Princess Anne Country Club—1:00 P.M.

Virginia Medical Service Association, Luncheon—Plans to be announced.

House of Delegates, Convention Center—4:00 P.M.

University of Virginia Alumni Association, Cocktail Party, Pool Loggia, The Cavalier—6:00 P.M.

Banquet, Cavalier Room, The Cavalier—7:00 P.M.

Medical College of Virginia Alumni Association, Cocktail Party, South Porch, The Cavalier—6:00 P.M.

Banquet, Pocahontas Room, The Cavalier—7:00 P.M.

Johns Hopkins Medical Alumni, Cocktails, Princess Anne Country Club—6:00 P.M.

Banquet, Princess Anne Country Club—7:00 P.M.

The Medical Society of Virginia, Dancing and Entertainment, Cavalier Room, The Cavalier—9:00 P.M.-1:00 A.M.

SCIENTIFIC EXHIBITS

Scientific exhibits will be located in the Convention Center.

Blue Shield—Thomas L. Martin and M. C. Green, Richmond.

Virginia Council on Health and Medical Care—Edgar J. Fisher, Jr. and Franklin Bacon, Richmond.

Planned Parenthood Clinics and Referral Physicians in Virginia—Virginia League for Planned Parenthood, Richmond.

Early Detection of Glaucoma—Virginia Society for the Prevention of Blindness.

Who Has VD—Communicable Disease Center, Venereal Disease Rranch, U. S. Public Health Service.

The Neurocutaneous Syndromes—Benedict Nagler, M.D., Lynchburg Training School and Hospital, Colony.

The Early Diagnosis and Management of Cancer of the Laryngo-Pharynx—William R. Nelson, M.D., Richmond.

A One Stage Hypospadias Repair—C. E. Horton, M.D., C. J. Devine, Jr., M.D., H. H. Crawford, M.D., P. C. Devine, M.D., and C. J. Devine, Sr., M.D., Norfolk.

Esophageal Diseases—Diagnostic Methods—James C. Respess, M.D. and Edward C. Wilson, M.D., Charlottesville.

Reconstructive Surgery of the Injured Hand—Claude C. Coleman, M.D., Charlottesville.

Role of Chronic Brain Syndrome in Emotional Problems of Childhood—William M. Lordi, M.D., Faith F. Gordon, M.D., and Jacob Silverberg, Ph.D., Richmond.

Some Less Common Peripheral Vascular Diseases—Eugene L. Lowenberg, M.D., Norfolk.

Hearing Restoration—Surgical Method—John B. Gorman, M.D. and James R. Gorman, M.D., Lynchburg.

Hypothermia—Joseph T. McFadden, M.D., Norfolk.

Pulmonary Emboli of Skeletal Muscle—Alvin P. Long, M.D. and A. A. Kirk, M.D., Portsmouth.

Muscular Dystrophy Associations of America—George F. Elsasser, Jr., M.D., Tidewater Muscular Dystrophy Clinic, Norfolk.

The Craniostenoses—Franklin L. Angell, M.D., Edgar M. Weaver, M.D., and John A. Martin, M.D., Roanoke.

Citrated Calcium Carbamide in Alcoholism—Merritt W. Foster, Jr., M.D., Richmond.

Patient Care, Education and Research—Department of Neurology and Psychiatry, University of Virginia—Ian P. Stevenson, M.D. and Associates, Charlottesville.

Chemotherapy of Pyoderma with Triclobisonium Chloride—Charles M. Howell, Jr.

Oral Drugs for Diabetes Mellitus—James M. Moss, M.D., DeWitt E. DeLawter, M.D., James B. Field, M.D. and Sidney A. Tyroler, M.D., Alexandria and Arlington.

Tobacco-Health Research Program—Tobacco Industry Research Committee.

Burn Scar Cancer—Jerome E. Adamson, M.D., Hugh H. Crawford, M.D., and Charles E. Horton, M.D., Norfolk.

TECHNICAL EXHIBITS

Technical Exhibits will be in the Convention Center. They will be open on Monday and Tuesday from 9:00 A. M. to 5:00 P. M., and on Wednesday from 9:00 A. M. until noon. The following is a list of these exhibitors with a brief description:

Booth No. 1

The Baker Laboratories, Incorporated
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss the benefits of Baker Milk Products which provide all the normal dietary requirements plus a reserve for stress situations.

Booth No. 2

Wm. P. Poythress & Company, Incorporated
Richmond, Virginia

A cordial welcome awaits you at the Poythress Exhibit—staffed by our Virginia representatives, Bob Crump and Marshall Rush. Featured will be the new Poythress analgesic tablet, Synirin. Mudrane—anti-asthmatic; Solfoton—traditional sedative; Solfoserpine—antihypertensive; and Trocinate—antispasmodic will also be exhibited. Literature and professional trial quantities of the above preparations will be available.

Booth No. 3

W. B. Saunders Company
Philadelphia, Pennsylvania

Earl Dunham will again be on hand with the complete Saunders line. New titles of special significance since last year's meeting include: Williamson—Office Diagnosis; Artz & Hardy—Complications in Surgery; Schaffer—Diseases of the Newborn; Mulholland et al.—Surgical Management II, and a new edition of the A.C.S. Outlines of Soft Tissue and Fracture Management.

Booth No. 4

VanPelt and Brown, Incorporated
Richmond, Virginia

VanPelt and Brown extend a cordial invitation to visit their exhibit where representatives will be happy to answer questions and supply clinical samples of their products.

Booth No. 5

Richmond Surgical Supply Company
Richmond, Virginia

Booth No. 6

St. Paul Fire & Marine Insurance Company
Richmond, Virginia

Our Company provides the Professional Liability Insurance for the members of The Medical Society of Virginia under an insurance program. Material will be available for distribution, brochures of coverage and other appropriate material of interest to doctors.

Booth No. 7

R. J. Reynolds Tobacco Company
Winston-Salem, North Carolina

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King size cigarettes.

Booth No. 8

The Lanier Company
Atlanta, Georgia

The Lanier Company of Norfolk, Richmond and Roanoke will be represented by Charles H. Hawkins and Beverly Fitchett. The full line of Gray Audograph Dictation Systems will be on exhibit with particular emphasis on the "Caduceus" Key-Noter, the dictating machine designed for the medical profession. Also of interest to the physician will be the Phonaudograph Remote Telephone Dictation System, first choice for hospital record systems. The Lanier Company welcomes you for a demonstration of the dictating systems best suited for the needs of the medical profession.

Booth No. 11

Mayrand, Incorporated
Greensboro, North Carolina

Booth No. 12

Westwood Pharmaceuticals
Buffalo, New York

Westwood invites physicians to stop by their booth to discuss their unique dermatological products: Fostex Cream, Fostex Cake, Sebulex, Lowila Cake, Lowila Emollient, and Alpha-Keri.

The products are particularly suitable for personal use by physicians and their families who may be plagued with dandruff, acne, dry itchy skin and sensitivities to soap. Register, so that we may send prescription units to your home.

Booth No. 13

American Casualty Company
Reading, Pennsylvania

The doctor in the dual role of a practicing physician and a practical business man will be spotlighted by an exhibit providing detailed information on two Society sponsored insurance programs—one covering major hospital and nurse expenses and the other offering protection against professional overhead expense.

Booth No. 14

Roche Laboratories
Nutley, New Jersey

LIBRIUM—a new, unique and versatile therapeutic agent which is virtually specific for the relief of irrational fear, anxiety and tension.

MADRIBON—is a completely new, low-dosage sulfonamide of particular value in the treatment of bacterial infections especially respiratory infections.

Booth No. 15

Julius Schmid, Incorporated
New York, New York

An interesting and informative exhibit featuring IMMOLIN Vaginal Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned and BENDEX Diaphragms; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (FOUREX) Skin Condoms, RAMSES, SHEIK AND ESQUIRE Rubber Condoms for the control of trichomonal re-infections.

Booth No. 16

C. B. Fleet Company, Incorporated
Lynchburg, Virginia

Exhibit will feature FLEET ENEMA in the ready to use squeeze bottle. Booth attendants will be on hand to demonstrate how your rectal examinations can be made easier, faster and more revealing. Available also are literature and instructions on a safe, simplified and effective method of preparation for barium enema studies.

Booth No. 17

The Borden Company
New York, New York

Featuring Borden's new pediatric creme METHAKOTE for the treatment of diaper rash in all degrees of severity. Eliminates B ammoniagenes the causative factor and prevents staph and other secondary invaders. The added sulphur bearing amino acids accelerate wound healing at site of lesion. Complete information on METHAKOTE and our infant formulas, Bremil and Mull-Soy, is available at our Booth through our courteous representatives.

Booth No. 18

Lloyd Brothers, Incorporated
Cincinnati, Ohio

Welcome to the Lloyd Brothers exhibit. Our professionally trained sales representatives will be pleased to greet you and discuss the merits of our products in your practice. Of particular interest will be a new booklet on Erythropoietin, the erythropoietic hormone.

Booth No. 19

G. D. Searle & Company

Chicago, Illinois

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Features will be our new Aldosterone-Blocking Agent for edema or ascites, Aldactone.

Booth No. 20

Ross Laboratories

Columbus, Ohio

Ross Laboratories, who also manufactures Similac, features SIMILAC WITH IRON, a new prepared infant formula supplying 12 mg. of ferrous iron per quart of formula. SIMILAC WITH IRON is designed for use at the time exogenous iron is indicated in infancy to support the usual diet and to provide prophylaxis against iron deficiency during the period of greatest incidence, from 6 to 18 months of life. Some special indications for use are following placental or traumatic blood loss, for prematures and twins, for the pallid, irritable, anorectic infant with an unsatisfactory blood picture and following prolonged infection or diarrhea.

Booth No. 21

Knoll Pharmaceutical Company

Orange, New Jersey

Stop at our exhibit and let us show you our newer preparations. You may now prescribe fruit-flavored, taste appealing QUADRINAL Suspension for asthma patients who prefer a liquid to the time proven QUADRINAL Tablet. DILAUDID for pain that synthetic analgesics frequently fail to relieve, also for "the cough that must be controlled". METRAZOL, Vita-METRAZOL and NICO-METRAZOL Elixir and Tablets for the geriatric and convalescent patient. AKINETON the new anti-parkinsonism agent.

Booth No. 22

Medco Products Company

Baltimore, Maryland

KOL-THERM—The instrument provides instantaneous cold or heat from 30 degrees to 130 degrees. Any degree of temperature throughout this range is immediately available by dialing the temperature desired. Moist cold or moist heat may be used by setting the Kol-Therm control to operate on "contrast" which alternately changes from one to the other for a predetermined period of time.

MEDCO-SONLATOR—1. Sound, 2. Stimulation, 3. Sound and Stimulation. The application of Electrical Muscle Stimulation and Ultra Sound simultaneously blended over the trigger area frequently results in breaking the reflex cycle in myofascitic syndromes.

Booth No. 23

Maltbie Laboratories Division
Wallace & Tiernan, Incorporated

Belleville, New Jersey

Maltbie Laboratories announces an entirely new chemical entity, DORNWAL, for treatment of anxiety and tension without causing drowsiness. Also featured are: CALDECORT, antifungal, antibacterial, anti-inflammatory dermatologic ointment; DESENEX, for athlete's foot; NESACAINE, a safe, potent and rapid-acting local anesthetic; CHOLANS, for hepato-biliary dysfunction; and CALDESENE MEDICATED POWDER for diaper rash.

Booth No. 24

Pet Milk Company

Saint Louis, Missouri

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Booth No. 25

Charles C. Haskell & Company

Richmond, Virginia

Featuring ISOCLOR, a new antihistamine-decongestant for oral relief of nasal, sinus, and chest congestion. ISOCLOR extends the range in decongestant therapy from relief of simple nasal congestion only to include chest discomfort, to permit free breathing and inhibit excessive mucosal discharge, post-nasal drip, and resulting night cough.

Booth No. 26

Ortho Pharmaceutical Corporation

Raritan, New Jersey

Ortho is introducing a new monilicidal vaginal cream, SPOROSTACIN. This emollient white cream contains the unique chemical chlordantoin which, because of its structure, has the unusual ability to penetrate the monilial membrane. Clinically proved, SPOROSTACIN Chlordantoin Cream is the treatment of choice in monilial vaginitis.

ACTASE Fibrinolysin (Human), the blood clot dissolving agent, will also be on display as well as the well known line of products for the control of conception.

Representatives on hand will be pleased to discuss their products and answer any questions which you may have.

Booth No. 27

William H. Rorer, Incorporated

Philadelphia, Pennsylvania

MAALOX, the pleasant tasting, non-constipating antacid is featured in liquid, tablets and MAALOX NO. 2 (double strength) tablets. Also highlighted are ASCRIPTIN, a professional salicylate for pain of arthritis, FERMALOX, a non-irritating uncoated buffered ferrous sulfate tablet, and PAREPECTOLIN, a pleasant tasting antidiarrheal preparation of Paregoric, Pectin and Kaolin.

Representatives will answer any questions concerning Rorer products.

Booth No. 28

The G. W. Carnrick Company
Newark, New Jersey

The G. W. Carnrick Company representatives will welcome you to their booth, which will exhibit Bontril Timed, the new triple release, triple-layer tablet all day anoretic agent; Nolamine timed-release tablets and Elixir Nolamine, the oral nasal decongestant that normalizes the mood; and Penite Sustained capsules and Penite tablets, for the prevention of angina pectoris attacks, the product that provides more positive coronary vasodilation with less cardiac work for the anginal heart.

Booth No. 30

Denab Laboratories, Incorporated
Denver, Colorado

Booth No. 31

The National Drug Company
Philadelphia, Pennsylvania

TEPANIL, ORENZYME and AVC SUPPOSITORIES are being featured at our exhibit.

TEPANIL—for weight control. A completely new compound that curbs the appetite without CNS stimulation. TEPANIL is safe, well tolerated, and suitable for evening use on patients of *all* ages.

ORENZYME—the *first oral* anti-inflammatory enzyme tablet on the market. ORENZYME is *swallowed*—just like an aspirin tablet. ORENZYME is indicated for treatment of any acute inflammatory process when swelling slows recovery.

AVC SUPPOSITORIES—a completely new vaginal suppository providing all the proven effectiveness of AVC Improved Cream. AVC SUPPOSITORIES are highly effective in controlling all the common types of vaginal infections—trichomonal, bacterial and fungal.

Booth No. 32

U. S. Vitamin & Pharmaceutical Corporation
New York, New York

Exhibit features C.V.P., an exclusive water-soluble citrus bioflavonoid compound with ascorbic acid—for restoring and maintaining capillary integrity. Corrects or minimizes capillary abnormality and bleeding associated with diabetes, hypertension, epistaxis, purpura, gingivitis and certain forms of gastro-intestinal, rectal and vaginal bleeding. Effective therapy in habitual and threatened abortion.

Booth No. 33

Doho Chemical Corporation
New York, New York

Doho Chemical Corporation is pleased to exhibit: AURALGAN—otitis media and removal of cerumen; OTOSMOSAN—fungicidal and bactericidal in the suppurative and aural dermatomycotic ears; RHINALGAN—nasal decongestant free from systemic or circulatory effect; and LARYLGAN—throat spray and gargle for infectious and non-infectious sore throat involvements.

Mallon Chemical Corporation, Division of Doho: RECTALGAN—for relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing; and DERMOPLAST—an aerosol spray for surface pain, burns and abrasions and obstetrical and gynecological use.

Booth No. 34

The Wm. S. Merrell Company
Cincinnati, Ohio

With MER/29 it is possible to reduce both serum and tissue cholesterol levels with one small capsule daily. Clinical results suggest important medical implications of interest to every practicing physician. Merrell representatives will be pleased to discuss the exciting facts about MER/29 with you.

Booth No. 35

Milex of New York
Long Island City, New York

Gynecological products will be featured at our booth. TRIMO-SAN for Trichomonas, Monilia and Mixed Leukorrheas will be introduced. Amino-Cerv Gel will be demonstrated as the treatment of choice for Cervicitis and post-surgical surgery. Samples of "A DOCTOR DISCUSSES THE MENOPAUSE", and "A DOCTOR'S MARITAL GUIDE" available upon request. New developments in the MILEX CANCER DETECTION PROGRAM will be surveyed. Please stop in any say "Hello".

Booth No. 36

Warner-Chilcott Laboratories
Morris Plains, New Jersey

GELUSIL—the physician's antacid—for the relief of gastric hyperacidity and management of peptic ulcer. Provides two protective coating gels for prompt, prolonged relief of pain. Gelusil is all antacid in Action—is non-constipating, contains no laxative.

PERITRATE—a long-acting coronary vasodilator for patients with coronary artery disease—whether angina pectoris or coronary occlusion. Peritrate improves coronary blood flow, thereby increasing collateral circulation, with no significant change in blood pressure or pulse rate. Smooth onset of action virtually eliminates nitrate headache.

Booth No. 37

Mead Johnson & Company
Evansville, Indiana

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Booth No. 38

The Upjohn Company
Kalamazoo, Michigan

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting.

We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

Booth No. 39

Schering Corporation

Bloomfield, New Jersey

Schering Corporation welcomes the members of The Medical Society of Virginia. We cordially invite you to visit the Schering Booth where representatives will be on hand to discuss with you the most recent advances in Rela, a new muscle relaxant-analgesic that eases sprains, strains and low back pains; Alpen, the new synthesized oral penicillin; Naqua, effective new oral diuretic—and antihypertensive; and Diloderm, first chlorinated steroid with specific topical effectiveness.

Booth No. 40

Pfizer Laboratories

Brooklyn, New York

Professional Service Representatives from Pfizer Laboratories will be pleased to have you in attendance at their booth to discuss the latest products of Pfizer Research.

Booth No. 41

Smith, Kline & French Laboratories

Philadelphia, Pennsylvania

Our representatives cordially invite you to discuss with them: (1) Ornade® Spansule® capsules, the unique oral nasal decongestant for treating symptoms of upper respiratory distress; (2) Fortespan® capsules, a therapeutic formula of high potency multivitamins in Spansule® sustained release capsules; and (3) Eskatrol® Spansule® capsules, for daylong control of appetite and relief of the psychic distress that causes overeating in "problem" overweight patients.

Booth No. 42

Davies, Rose & Company, Limited

Boston, Massachusetts

A cordial invitation is extended to the members to visit our booth.

Although most physicians need no introduction to our outstanding cardiac therapies—Pil. Digitalis and Tablets Quinidine Sulfate (Natural)—our representative, Mr. James B. Mattison, will be on hand to welcome you and will be pleased to have the opportunity to further discuss the dependability of our laboratory productions.

Booth No. 43

Geigy Pharmaceuticals

Yonkers, New York

Geigy pharmaceuticals cordially invites members and guests to visit its technical display. Its original contributions to modern therapy of cardiovascular, rheumatic, psychiatric and metabolic disorders will be presented by representatives in attendance.

Booth No. 44

Eli Lilly and Company

Indianapolis, Indiana

You are cordially invited to visit the Lilly exhibit located in space No. 44. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

Booth No. 45

A. H. Robins Company, Incorporated

Richmond, Virginia

Robins exhibit is featuring the DIMETANE EXPECTORANT formulations for control of allergy-associated coughs; PHENAPHEN and PHENAPHEN with Codeine, which provide the synergistic benefits of analgesia and sedation; ROBAXIN, specific for skeletal muscle relaxation; ROBAXISAL, new formulation combining the relaxant action of Robaxin with the pain relieving action of aspirin; and PABALATE (plain, sodium-free or with hydrocortisone), indicated in rheumatoid arthritis and its variants.

Booth No. 46

Sanborn Company

Waltham, Massachusetts

New ELECTROCARDIOGRAPHS of advanced design and function, as well as latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth.

Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.

Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

Booth No. 47

Ciba Pharmaceutical Products, Incorporated

Summit, New Jersey

ESIDRIX is hydrochlorothiazide, an improved analog of chlorothiazide. Milligram-for-milligram, it is the most effective oral diuretic-antihypertensive known. Therapeutically, ESIDRIX is 10 to 15 times more potent than chlorothiazide. Weight losses up to 56 pounds have been reported. In many cases ESIDRIX caused copious diuresis in patients unresponsive to other oral and/or parenteral diuretics. Side effects are usually mild, infrequent and readily controlled.

Booth No. 48

E. R. Squibb & Sons

New York, New York

Booth No. 49

Burroughs Wellcome & Company (U.S.A.) Incorporated

Tuckahoe, New York

Booth No. 50

Physicians Products Company, Incorporated

Petersburg, Virginia

Our Sales Manager, Mr. F. A. "Dick" Frayser, will be in charge of the exhibit. He, along with local representatives, will be quite anxious to show the members and their guests the latest releases from "Physicians".

Professional samples and literature will be available at the Booth or they will be mailed direct to the office.

Booth No. 51

Sandoz Pharmaceuticals

Hanover, New Jersey

Sandoz Pharmaceuticals cordially invites you to visit our display.

MELLARIL—the first potent tranquilizer with a selective action (i.e.—no action on vomiting centers). This unique action gives specific psychic relaxation with safety at all dosage levels.

CAFERGOT PB—the most effective oral medication for the relief of migraine headaches with G. I. disturbance accompanied by tension.

PLEXONAL—preferred daytime sedative-relaxant. Superior to both the barbiturates and meprobamates.

Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

Booth No. 52

Abbott Laboratories

North Chicago, Illinois

Abbott Laboratories invites you to visit our exhibit. Our representatives will be happy to answer any questions you may have concerning our leading products and new developments.

Booth No. 53

J. B. Roerig & Company

New York, New York

The Roerig Booth will feature a new product, MAXIPEN, the orally maximal penicillin. MAXIPEN provides substantially higher blood levels than older oral forms, maximal absorption, maximal flexibility, and maximal oral indications.

Booth No. 54

Lederle Laboratories

Pearl River, New York

You are cordially invited to visit the Lederle booth where our medical representatives will be anxious to discuss the latest products applicable to your practice.

Featured will be DECLOMYCIN® Demethylchlortetracycline, the most recent contribution to broad-spectrum antibiotic therapy, ARISTOCORT® Triamcinolone, the highly effective, well tolerated corticosteroid, and other products of Lederle research.

Booth No. 56

The Coca-Cola Company

Atlanta, Georgia

Ice-cold Coca-Cola served through the courtesy and cooperation of the Norfolk Coca-Cola Bottling Works, Incorporated, and The Coca-Cola Company.

Booth No. 57

Peoples Drug Stores, Incorporated

Washington, D. C.

Peoples Drug Stores are deeply grateful to the physicians of Virginia for their continued cooperation and support. The members of The Medical Society of Virginia, in attendance at the annual meeting, are cordially invited to visit our booth. Representatives of our company will be on hand to greet you and furnish information concerning the professional services offered to physicians.

Executive Secretary-Treasurer

The Medical Society of Virginia can look back on the past 12 months with justifiable pride. During those 12 months it has compiled a long and impressive list of accomplishments. This will come as no surprise to those who have long been aware of the great effort and countless hours given so freely and unconditionally by a group of officers and committeemen whose real reward lies in the knowledge of a job well done.

Never before have so many activities been carried on in so many fields, and this has been done without resorting to the usual procedure of so many organizations—raising dues. We know full well that many members are unaware of the many services performed hy the Society during the course of a year. The reason, of course, is obvious. Your Officers and Staff have always gone about their work without fanfare—steadfast in the belief that results are much more important than publicity.

Did you know, for example, that members of your Council spent an entire day in Washington with Virginia's Congressional Delegation and let them know just how the membership stood on the Forand Bill and other legislation of importance to the profession. Your Council came away with the knowledge that it had been successful in getting the Society's message across to the right people.

Then, there was the day when your Officers joined forces with those of the Virginia Bar Association and others for the purpose of visiting Senator Byrd and letting him know why professional people are interested in the passage of HR 10—better known as the Keogh-Simpson Bill. A conference with officials of the U. S. Treasury Department followed.

Perhaps you would be interested in accomplishments of a more tangible nature. If so, the determination of the Society's Insurance Committee to make available the finest professional liability insurance program possible—at the lowest possible cost—should be mentioned. Once again, through the Society's own program, participating physicians are realizing premium savings previously not believed possible. Members now find it possible to save much more than the cost of membership dues alone.

And so it goes—right down the line. Your Society not only led a vigorous attack on the Forand Bill and similar legislation, but it also assumed the lead in trying to find answers to the questions being asked in Washington about health care for the aged. It was your Committee on the Aging which invited the Virginia Dental Association, Virginia Hospital Association and Virginia Nursing Home Association to join with The Medical Society of Virginia in establishing a Virginia Joint Council to Improve the Health Care of the Aged. Now, with four of the leading health organizations in the State working together, we should find it possible to really coordinate the various health services and projects for Virginia's senior citizens.

Some day, perhaps, your Officers and Staff will find some yet undiscovered method of portraying for you in graphic fashion the true role played by the Society in your professional life. For now, however, suppose we take a quick look at some of the year's activities which should be of interest to all.

Council: The regular mid-winter meeting of the Council was held at Society Headquarters on February 4, and complete minutes can be found in the April, 1960, issue of the Virginia Medical Monthly.

Because of an unprecedented number of Bills (over 50) of interest and concern to the profession which were considered by the General Assembly, it was necessary for Council to hold on February 28 a rare emergency session called on very short notice. Members of the Legislative Committee also attended and, as a result, a very effective action program was developed.

Committees: Eleven Standing and Thirty Special Committees served the Society during the year. Committee members, for the most part, never really receive the recognition which they deserve. Many work behind the scenes at considerable personal sacrifice and too often their jobs are of the thankless variety. To all of them goes this writer's sincere thanks for jobs well done.

Component Societies: Your Executive Secretary must admit that he has failed to visit as many of the forty-seven Component Societies as he would have liked. He did visit twelve, however, and will make every effort to improve on that number during 1960-61. Consolation is found in the fact that the President attended a number of other Component Society meetings and continued the policy of carrying the Society to the membership.

Membership: The Society continues to break membership records every year. Last year the figure was 2,875 and now we have passed 2,900 and are closing on the magic number of 3,000. It looks like a sure thing for 1961. The membership story in detail follows:

Members reported July 31, 1598			2,875
New members	153		
Reinstated	6		
Gain		159	
Deaths	38		
Resignations	21		
Dropped	17		
Loss		76	
Increase			83
Total membership July 31, 1960			2,958

American Medical Association Membership: Here again we find a steady, although not too rapid, climb. We take this opportunity to call the attention of our members to the mounting number of benefits derived from AMA membership. The publications alone are worth more than the annual dues of $25. When you consider that the Journal of the AMA, the AMA News, Today's Health, and one of the specialty journals are all benefits of membership, it is little short of amazing. AMA's many other services to American medicine are well-known.

Meetings and Conferences: Never before has the Society been represented at so many local, state, regional

and national conferences. Although it will no doubt come as a surprise to some, many of your Officers and Committee Chairmen traveled many thousands of miles to keep informed on ways and means to better serve the physicians of Virginia. The record shows that The Medical Society of Virginia sent representatives to Washington in an effort to learn as much as possible about Relative Value Schedules. A delegate was also in Washington for the meeting of the U. S. Pharmacopoeial and representatives were on hand for an AMA conference on civil defense.

A number of members traveled to Baltimore where the Society co-sponsored a regional conference on problems of the aged, and the Society was also well covered at the National Blue Shield Professional Relations Conference in Chicago.

Then there was the AMA Legal Conference and the annual AMA Public Relations Institute—both in Chicago —and again your Society had representatives on the scene. As a matter of fact, the Chairman of your Public Relations Committee was featured on the program of the PR Institute.

Two members of a Special Medical Education Sub-Committee journeyed to Ann Arbor to learn first-hand how the State of Michigan is solving its Intern and Residency problem. Farm safety as a top priority rural health project was advocated by a Society representative at an AMA Planning Conference in Atlanta.

With the White House Conference on the Aging scheduled for 1961, your Society considered it imperative to have the Chairman of its Committee on Aging attend a briefing session in Chicago on this "make or break" conference.

The President was on hand for the AMA Conference for Presidents and Officers of State Medical Societies held at Miami Beach. A new and up-to-date look at voluntary health insurance plans was taken during a special conference in Chicago and again a representative of the Society brought back the latest ideas on the subject.

Staff members were panel participants on programs presented by the State Medical Journal Conference in Chicago, and the Medical Societies Executive Association also in Chicago.

Headquarters Building: Although the House Committee has published a very thorough report elsewhere in these pages, it is perhaps well to mention here that the cost of maintaining and operating the new building continues to be greater than originally hoped for and expected. Ways and means of reducing this cost are constantly being sought and it is hoped that next year your Staff can report some degree of success. Six medical organizations held a total of sixteen meetings in the building during the year.

Virginia Council on Health and Medical Care: Once again the Society contributed $3,000 to this very fine and effective organization. If this contribution seems large to some, it should be pointed out that the Council is actually doing work which otherwise would, of necessity, become the responsibility of The Medical Society of Virginia. Perhaps the best examples are those programs involving Physician Placement and Health Careers Recruitment. Since September of last year, the Society has referred twenty-five requests for placement assistance to the Council. Three of those asking for help were successfully placed.

A special committee of the Society worked with the Council in developing material for the Health Careers program.

Virginia Medical Monthly: Members have undoubtedly noted the changes which were made in the Monthly beginning with the January issue. The cover design is new and the general format has been changed to make far easier reading. These changes are in keeping with the progressive policy of the Managing Editor, Miss Watkins.

Personnel: Although the number of full-time Staff employees remains at four, we regret that the transfer of her husband to California made it necessary for Mrs. Joann Bell, our efficient secretary for seven years, to leave us. We have been fortunate, however, to obtain a most able replacement in Mrs. LaRuth Spring.

It should be said here that only by working as a team is it possible for a small staff of four to effectively carry on the work required by a membership rapidly approaching the 3,000 mark. Society members can thus take pride in the dedicated and capable people who represent them in the State office—namely Miss Watkins, Mrs. Spring and Mr. Smith.

In closing this report, the Executive Secretary would like to repeat his statement he made two years ago: "The value of any professional association can be measured only in terms of services to its members."

Won't you help us to help you? Call us, write us, or better yet, visit us and see your Society at work.

Robert I. Howard
Executive Secretary

Editorial Board

Since our last report the Virginia Medical Monthly has suffered a grievous loss in the death of Dr. Wyndham B. Blanton. Dr. Blanton was editor of the Journal from 1933 until 1943 and after his retirement from this office he continued as a member of the Editorial Board and gave freely of his time and counsel until his sudden death on January 6, 1960.

Dr. Robert E. Mitchell, Jr. has been appointed to the vacancy created by Dr. Blanton's death.

Your editor also regrets to report that the press of other duties has prompted Dr. Robert L. Payne, Jr., of Norfolk to resign from the Editorial Board.

A change in the cover and format of the Journal was made this year, which we hope meets with the approval of the membership.

Financially the Virginia Medical Monthly continues in the black and our chief concern at the present time is to obtain representative original papers from the members of our society. This task is made more difficult by the present popularity of symposia and round table discussions, which do not result in a typed article suitable for publication. Please continue to support your Journal by sending in scientific articles, as well as news items.

H. J. Warthen, Jr., M.D., *Chairman*

Judicial

The Amendments to the Constitution and By-Laws contained in this report have been proposed to the Judicial Committee with the request that they be put in proper form and published in the Virginia Medical Monthly in accordance with Article XIII of the Constitution.

Your Committee wishes to emphasize the fact that it makes no recommendations concerning the desirability of these proposed Amendments. Such decisions, the Committee believes, rest properly with the House of Delegates.

The following Amendment to the Constitution has been directed by the House of Delegates:

Amend the first sentence of Article VII of the Constitution to read as follows:

"The House of Delegates shall be the business and legislative body of the Society, and its membership shall consist of the delegates elected by the component societies, the President, President-Elect, First Vice-President, members of the Council, Past Presidents of the Society, officers of the American Medical Association who are members of the Society, and delegates of the Society to the American Medical Association."

(The purpose of this Amendment is to grant full membership in the House of Delegates to the Society's delegates to the American Medical Association)

The following Amendments to the By-Laws have been proposed:

Article VI

Section 6—Amend the first sentence of Section 6 to read as follows:

"Councilors shall be elected at the annual meeting for a term of two (2) years, those from odd numbered Congressional Districts on odd years, and those from even numbered Congressional Districts on even years."

(The purpose of this Amendment is to clarify the By-Laws by eliminating reference to both Councilor Districts and Congressional Districts. The word "Congressional" has been substituted for the word "Councilor").

Article VIII

Section 7—Amend the first sentence of Section 7 to read as follows:

"Each Congressional District may have a District Council composed of members from each County and City in the District, the Councilor of that district to act as chairman."

(The purpose of this Amendment is to permit each Congressional District to organize a District Council rather than imply that it must be done).

J. Morrison Hutcheson, M.D., *Chairman*
W. Callier Salley, M.D.
James P. King, M.D.

Scientific Exhibits and Clinics

If one were to judge from the applications themselves, he would have to predict that the 1960 Scientific Exhibit promises to be one of the best ever presented during an Annual Meeting.

Credit for this exhibit, which will feature the unbeatable combination of quality and quantity, belongs to Dr. Edwin I. Smith, member of the local committee on arrangements and key man in scientific exhibit plans and arrangements.

The exhibit will be located in the very center of the Virginia Beach Convention Auditorium and just a step from the meeting room in which all scientific sessions will be held. This should be the perfect arrangement, with scientific sessions, technical exhibits and scientific exhibits in convenient proximity to each other. Plan to spend as much time there as possible.

Frank M. Blanton, M.D., *Chairman*
Charles L. Crockett, Jr., M.D.
Eugene L. Lowenberg, M.D.

Ethics

Your Committee is pleased to report another quiet and, for the most part, uneventful year. Only two matters were brought to the attention of the Committee and these were in the nature of inquiries. Consequently, the Chairman did not find it necessary to call a formal meeting and was able to handle each inquiry in an acceptable manner by consulting individually with members of the Committee.

Your Committee sincerely believes that, in these uncertain days, physicians should use the AMA principles of medical ethics as an aid in charting their future course. Perhaps it should also be mentioned that Article III of the Constitution of The Medical Society of Virginia states that ". . . . . the principles of the medical ethics of the American Medical Association shall govern the members".

Russell G. McAllister, M.D., *Chairman*
Robert P. Trice, M.D.
Harold W. Miller, M.D.

Mediation

It is encouraging to report that your Mediation Committee has enjoyed an unusually quiet year. No matters have been referred to it and this in itself indicates that local Mediation Committees are doing a commendable job.

Your chairman, however, has met with the Executive Secretary of the Society on several occasions for the purpose of assisting him with matters requiring special consideration.

Carrington Williams, M.D., *Chairman*

Legislation

An unsually large number of bills dealing with matters of interest to The Medical Society of Virginia were introduced at the recent session of the General Assembly. We include in this report only Acts, resolutions and defeated bills which are of general interest.

Maternal Health

For many years your Committee on Maternal Health and the State Department of Health have been conducting joint studies of maternity related deaths with the purpose

of reducing mortality in this field. In order that the conduct of these studies might be facilitated your Committee prepared a bill authorizing any practitioner of the healing arts to permit the State Department of Health to examine and review his records relating to the death of a patient provided the authorization is requested in the course of a study for the purpose of reducing mortality. The bill also protected the practitioner in permitting such examination, limited the divulging of the contents of such records, and preserved the anonymity of the patient and physician involved. The bill was supported by your Legislative Committee and was duly enacted into law.

The General Assembly also made a number of changes in the Maternity Hospital Law. Hereafter, no person may construct, or make material alterations or additions to, a maternity hospital without first filing a copy of construction plans with the State Board of Health. Physicians' orders for the care of mothers and infants must now be written on the patients' charts or in order books at the time they are given, unless such writing is prevented by unusual circumstances, in which case they must be written within twenty-four hours; the requirements with respect to physical examination of employees who are in contact with patients or handle food are made more stringent; an available source of supply of blood for transfusions is required; and incubators must be provided in all maternity hospitals.

Homes, Hospitalization and Sanitaria

The General Assembly in 1959 requested the Virginia Commission on the Aging to study and report on institutional facilities for the aged, and the Commission recommended construction of homes on a State-Local matching appropriation basis. Your Council was of opinion that the State should not enter the nursing home field and that the Commission should continue its studies in order that private enterprise might be properly informed as to present and future needs. The bills which would have carried out the recommendation of the Commission died in committee.

The Assembly directed the Commission on Economy in Governmental Expenditures to study the programs of the several State tuberculosis sanitaria and to consider the economy and practicability of merging some of these. At the recommendation of the V.A.L.C. the statutes under which private mental hospitals are licensed were clarified and strengthened in such manner as to give the State greater control over privately operated homes for the mentally deficient.

The Public Welfare and Assistance Law was amended to include hospitalization when medical care is authorized for beneficiaries, and the Board of Welfare and Institutions was directed to promulgate uniform standards of eligibility for hospitalization under the State-Local Hospitalization Program.

Scholarships

The number of nursing scholarships available at the Medical College of Virginia was reduced from 20 to 13 and the amount of each increased from $100.00 to $150.00, and the repayment provisions of the medical and dental scholarships laws were liberalized.

Vital Statistics

A completely new vital statistics law was enacted. This follows generally the pattern of model statutes on the subject and makes a number of changes in the present law. For example, the primary responsibility for filing the certificate of a birth which occurs in an institution now falls on the institution rather than the attending physician.

Sterilization

A special study commission created at the last regular session to study problems relating to children born out of wedlock recommended that voluntary sexual sterilization be authorized, that the physician who performs such an operation be protected, and that the Department of Health be directed to conduct a pilot study of the problems of mothers of illegitimate children. Bills designed to carry out these suggestions were introduced, as were bills to provide for the sterilization, pursuant to court order, of women who have had more than one illegitimate child and whose subsequent offspring are likely to become public charges, and to establish local Eugenics Boards to administer provisions for the sterilization of persons whose children might inherit mental illness, epilepsy or mental deficiency from them. All these bills failed to pass, but the V.A.L.C. was directed to make a study of the Virginia laws relating to sexual sterilization and to recommend any changes which appear necessary in the light of presently available medical knowledge.

Radioactive Materials

Studies of the storage and use of radioactive materials and the dangers of radioactivity were conducted in 1957 and 1959 by the Virginia Advisory Legislative Council, and The Medical Society of Virginia has had its own Committee on Radiation Hazards since October, 1957. A radiation hazards bill recommended by the V.A.L.C. was passed by the General Assembly. This bill requires in substance that radiation machines and radioactive materials be registered with the State Health Department. There are a number of minor practical exemptions from the Act, but in the opinion of your Legislative Committee this represents a very good start on a serious problem.

Blue Cross - Blue Shield

At the time of the convening of the General Assembly there was pending before the State Corporation Commission of Virginia a proceeding involving the right of the plans to provide non-deductible coverage for certain of their subscribers. In this proceeding the Commission had indicated its willingness to give up the right to fix rates and a bill was introduced to repeal that section of the Code providing that rates for contracts should be fixed by the Commission. This bill was enacted as an emergency measure and became effective on March 29, 1960, but was amended before its enactment in such manner as to make applicable to the plans certain statutes relating to insurance companies generally, which statutes make the plans subject to the inspection, supervision and regulation

of the State Corporation Commission and liable for a part of the cost of administering the Insurance Division thereof, prohibit unfair methods of competition, give the Commission the right, under certain circumstances, to suspend or revoke their licenses to do business, require the filing of annual statements and reports, give the Commission the right to make examinations of their books and affairs, and require the filing with the Commission of copies of forms of contracts to be used.

The General Assembly also directed the Virginia Advisory Council to conduct a broad study of the laws governing plans for hospitalization, medical and surgical services, including rates, deductible provisions, reserves, taxation and other pertinent phases of the subject.

Medical Practice Act

Amendments to the Medical Practice Act to provide for the licensing of physical therapists were quite carefully worked out in 1956 and 1957 and adopted by the General Assembly in 1958. A bill which would have cut deeply into the provisions governing this branch of the healing arts was introduced at this session but was eventually amended in a way satisfactory to the patron of the bill and to your Legislative Committee. As enacted it simply enumerates some activities which are related to physical therapy but which do not require licensing.

The State Board of Medical Examiners for the examinations given in June and December, 1959, used the examinations prepared and graded by the National Board of Medical Examiners, but could not continue this practice without additional funds. At its request a bill was prepared increasing the amount of fees to be charged applicants for examinations in an amount sufficient to take care of the additional costs. Your Legislative Committee approved this bill and was instrumental in having it passed as an emergency measure in order that the National Board examinations might be given in the spring of 1960. This statute, which took effect on March 17, 1960, also clarified the law with respect to refund of examination fees where none or only part of the examination is taken. Other legislation which was recommended and passed revises the language of the statutes describing the subject matter of the examinations given by the Board.

Group Practice

A bill was introduced on behalf of Group Health Association of Washington, D. C., for the purpose of amending the Blue Cross-Blue Shield statutes in such manner as to permit a voluntary non-profit membership corporation to conduct a plan for furnishing prepaid hospital, medical, surgical and dental services in Virginia. Group Health Association is a closed panel organization which does not provide the free choice of physicians by its members. In furnishing medical, surgical and dental services it is engaged in the corporate practice of medicine, which is not permitted in Virginia under our medical practice statutes. The bill was not introduced until very late in the session and was not reported out by the committee to which it was referred.

Milk Inspection

When a contest arose between the Health and Agriculture Departments, each seeking exclusive control of the inspection of milk facilities, the Council of the Medical Society reaffirmed the Society's position favoring inspection by the Department of Health. After extended and somewhat emotional public hearings before the House and Senate Committees, the question was referred to the Virginia Advisory Legislative Council for study and report.

Drunk-Driving

A bill which was popularly referred to as an "implied consent bill", and which would have compelled anyone who was arrested for driving while intoxicated to submit to a blood test, died in committee, and the voluntary blood test statute was amended so as to limit the giving of such tests to a two-hour period after the occurrence of the alleged offense.

Polio

A bill which would have authorized localities to require that school children be immunized against polio failed of passage, but the Assembly by resolution directed the Department of Health to promote the inoculation of young people against the disease.

Workmen's Compensation

A number of bills were introduced relating in various ways to workmen's compensation, among them a bill to provide for the establishment of a second-injury fund so that a person injured in different employments might receive compensation for the difference between the sum of the compensation allowable for each of his injuries and the total compensation allowable for the combined effect of injuries received in the same employment. The idea behind the second-injury fund has been approved in principle by the Society, but this Committee pointed out in its report of 1958 legislation that the adoption of a satisfactory plan would not be easy, and in fact the study committee of the V.A.L.C. reported that it was unable to agree on a recommendation. It was not surprising, therefore, that the bill was left in a subcommittee. A bill which would have permitted the Industrial Commission to allow disability payments for anthracosis likewise died in committee. The Workmen's Compensation Act requires an employer to furnish certain medical care to an employee free of charge for a period of 60 days. This was changed so as to include initial prosthetic appliances in such medical care and so as to empower a single Commissioner to extend the period for as long as two years. Formerly an extension could be granted only by a majority of the Commission and then for only one year. The Statute of Limitations on claims for compensation was amended so as to run from the time that diagnosis is first communicated to the patient whereas formerly it began to run when the employee first experienced a "distinct manifestation" in the form of symptoms.

Miscellaneous

A bill which would have relieved physicians from civil liability for emergency care rendered in good faith was defeated, as was a bill providing that the statute of limitations in malpractice suits would not start until the time the injury was discovered rather than the time the cause of action arose.

A bill permitting paying patients to maintain actions against charitable hospitals for injuries caused by the negligence of their employees died in committee.

Your chairman would like to express his thanks to the members of the Committee for their assistance and advice in dealing with the problems encountered at this session. He is particularly grateful to the legislative members of the Committee who gave such wise, careful and conscientious attention to medical legislative affairs, and to Dr. Donald S. Daniel, Dr. L. L. Shamburger and Dr. James J. Dunne, who gave so liberally of their time in the furtherance of the legislative goals of the Board of Medical Examiners and the Maternal Health Committee.

JAMES D. HAGOOD, M.D., *Chairman*

Medical Service

The Committee has held two very interesting meetings during the year but unfortunately the entire Committee could not be present on either occasion. At the time of the first meeting in March the status of "Second Injury Type of Legislation" was reported upon. Two members of the Committee had appeared before the Virginia Advisory Council on Legislation, and subsequently had appeared before the sub-committee of the House of Representatives regarding a bill which had been introduced for the purpose of establishing a second injury law. It was obvious to those interested in promoting this type of legislation that there is active opposition on the part of the State Compensation Commission, the Executive Secretary and certain other elements of the Virginia Manufacturers' Association, and certain members of our own State Medical Society. With these facts in mind it was decided that further efforts in this direction would prove of no avail at this time and it was recommended that we discontinue participation in this field.

After due discussion the Committee recommended that the Society make an appropriation to the Northeastern Clearing House of the American Association of Blood Banks.

It was further recommended that the Council of The Medical Society of Virginia recommend to all component medical societies and through them to the respective hospitals in the state that each join the American Association of Blood Banks and that each hospital consider the advisability of "transfusion accreditation services" of the American Association of Blood Banks.

The Committee further recommended to the Council that the Society's liaison committee with the State Bar Association consult some of the outstanding jurists and professors of law in the state in a further effort to establish more satisfactory medical-legal relationships for the physicians in the state.

The Committee then discussed in detail the question of "relative value schedules". After much consideration it was decided that members of the Committee should make every effort possible to obtain a subsequent instruction session to be held by the AMA in Washington. The Committee's feelings at this time were that the matter of relative value schedules would require individual county study. However, the position of this Committee was changed at its subsequent meeting held on June 19, 1960. At the June meeting, Dr. Richard Palmer reported on his attendance at the session held by the AMA in Washington for advising states regarding relative value schedules and the desirability of same. After much discussion pro and con regarding relative value schedules, the use of same, etc., it was the Committee's recommendation to the Council that:

1. The California relative value schedule be adopted as a guide and that if component medical societies are interested in obtaining further information concerning the schedule they should indicate their willingness to be represented at a state or district meeting on the subject.
2. The Committee then resolved that if sufficient interest were shown throughout the State in obtaining further information on relative value schedules that this Committee would be glad to assume the responsibility for disseminating such information, preferably through small area meetings where there could be a more intimate association between those discussing the matter and those interested in obtaining information.

Medical Service Committee recommends to the Council that a delegate from the Virginia Hospital Association be invited to meet with the Society at its annual meeting. Dr. Ennion Williams reported in detail regarding information which had developed at the Conference on Voluntary Health Insurance Plans held in Chicago on May 13-14. A very detailed report was filed by Dr. Williams and this is available to any who are interested in reviewing same. During the past year there have been practically no complaints for the sub-committee on insurance to handle. However, this sub-committee has kept itself well-informed on the developments throughout the country on the insurance and prepaid medical care program.

Unfortunately, it was impossible for a member of the Committee to attend the awarding of certificates to the 4-H Clubers for attainments in health projects during the past year. This activity has been sponsored by the subcommittee on Rural Health of this Committee and has been considered one of the most outstanding projects of the State Society. It is recommended that the Society again appropriate $500.00 for prizes to be awarded to the 4-H Clubs to carry on this work and that efforts will be made to make certain that a representative of the State is there on future occasions.

The Chairman wishes to express sincere thanks and appreciation to all members of the Committee who have assisted in its activities throughout the year.

C. L. SAVAGE, M.D., *Chairman*

Membership

The Membership Committee has had no matters referred to it during the past year.

The committee would, however, like to take this opportunity to welcome the many new members who have come into the Society since the last annual meeting. The names of these new members have been published in the Virginia Medical Monthly.

It is encouraging to note that physicians are becoming more and more aware of the benefits to be derived from Society membership and are joining in a concerted effort

to preserve the free practice of medicine.

Your committee takes great pleasure in presenting to the membership the name of Dr. Allen Barker, our retiring president, for honorary active membership in The Medical Society of Virginia. The manner in which he has handled a difficult job during a difficult year deserves the gratitude of every physician in Virginia.

William Grossmann, M.D., *Chairman*
William W. Old, III, M.D.
William L. Sibley, M.D.

Public Relations

Perhaps the words "public relations" are becoming shopworn, or perhaps the public is tiring of the "man in the gray flannel suit" concept of PR. Whatever it is, many organizations are taking another look at their public relations program with the idea of getting back on the right track. It is interesting to observe that the AMA now has a Communications Division rather than a Department of Public Relations, the Armed Forces have Public Information Officers rather than Puhlic Relations Officers, and so on down the line. This all points up the fact that the accent is being placed on services with the realization that good relations will then take care of themselves.

With this thought in mind, your committee, at the risk of being repetitious, wishes to call attention to the following quote from last year's report: "Your committee has been very careful to sponsor only activities which provide or stress service—activities in keeping with the pride and dignity of the profession."

The committee is particularly pleased to report that "Senior Day" programs were presented for senior medical students at both the University of Virginia and the Medical College of Virginia. This is the first time programs have been presented at both schools during the same year. The largest attendance ever, 135 (including wives and guests), attended a dinner and program at the Richmond Academy of Medicine, and a turnout of 105 was on hand for the festivities at Slater's Restaurant in Charlottesville. Both groups heard Dr. Thomas W. Murrell, Jr. discuss the physician's responsibilities to his patients and community. The manner in which these "Senior Day" programs have been received is most gratifying to the committee.

The committee's radio program, guided by Ed Smith, was again quite successful. Fourteen stations participated during the year. We regret, however, that we must announce the termination of this particular phase of our overall program. The AMA has recalled its many transcription series and, from this point on, will no longer use State Medical Societies as distribution centers. AMA is now concentrating on several selected series and distributing them from Chicago. It is interesting to note that the ground work done by this committee has made it possible for AMA to place its top priority series entitled "Medical Milestones" with twenty-one Virginia stations.

Television stations in Lynchburg and Richmond featured a series of short announcements entitled "Say It With Spots". Each announcement contained a medical message and all of them were apparently well received.

Your chairman was a participant on the program of the 1959 PR Institute in Chicago, where he reported on the battle against food faddism being waged in Virginia. It is encouraging to report that the campaign is still being carried on, largely through the efforts of the Virginia Bakers' Council and the Richmond Dairy Council. These two groups are responsible for showing the film "'The Medicine Man" to thousands of Virginians and also for the distribution of many thousand pieces of special literature prepared by AMA.

The bitter struggle over Forand-type legislation has apparently caused many students to select socialized medicine as the subject of their term papers. Your committee answered any number of requests for material and sees to it that an adequate supply of up-to-date material is always on hand.

Public relations activities are not confined to your PR Committee alone, and this is as it should be. For example, the Committee on Rural Health again presented special awards to boys and girls in the 4-H Club who completed outstanding health projects. We wish it were possible for every member to read the letters of appreciation from these young people.

Your chairman cannot help but repeat once again the often used, but ever true, adage that "the best medical puhlic relations is practiced in the physician's office." We know this to be an absolute fact hecause your committee hears about physicians who practice good personal public relations. Believe it or not, patients do call to tell us nice things about their doctors.

John Wyatt Davis, M.D., *Chairman*
Thomas W. Murrell, Jr., M.D.
Mason C. Andrews, M.D.
William S. Terry, M.D.
Thomas E. Haggerty, M.D.
William H. Barney, M.D.

Child Health

A meeting of the Committee on Child Health was held in Richmond on June 22, 1960, and a number of important matters were discussed at that time. It is believed that the minutes of this meeting will serve as the best possible committee report.

The meeting on June 22 was attended by Dr. William E. Harman, Chairman, Dr. Gayle Arnold, Dr. Morris A. Lambdin, Dr. Thomas S. Chalkley and Dr. Robert D. Shreve. Also attending was Dr. William Spencer, Co-Chairman of the Fetus and Newborn Committee of the Virginia Chapter, American Academy of Pediatrics.

Dr. Harman reviewed the minutes of the 1959 meeting and reported the various actions taken on the committee recommendations. The committee was advised that The Medical Society of Virginia, during its 1959 annual meeting, had decided not to support proposed legislation requiring polio immunization before a child could enter school. It was also reported that a bill authorizing communities to make polio immunization compulsory had been turned down by the General Assembly.

There was some discussion as to whether or not polio might now be considered a public health problem. It was brought out that Michigan has recently passed a law

which provides for screening of all school-age children. The committee was in complete agreement that compulsion is not popular in Virginia and that the best answer quite obviously must come through education. It was the committee's recommendation that The Medical Society of Virginia contact the State Board of Education and urge that polio immunization be added as a requirement for school admittance.

The committee expressed its pleasure over the fact that there has been a marked reduction in the number of accidents and deaths resulting from the use of plastic bags. This is a good indication that the nation-wide educational campaign of last year was quite successful.

The publication of a poison-control-center directory was then discussed, and it was reported that such a directory will soon be published in the Virginia Medical Monthly. The committee learned that Dr. Saul Kaye and Dr. Mack I. Shanholtz are collaborating on an article which will accompany the listing of the centers.

Also considered was the advisability of seeking legislation requiring the labeling of all commercial products of a poison nature. It was brought out that a bill currently before the Congress (SR-7352) would require such labeling. The committee also expressed the belief that Junior Chambers of Commerce would perform a real service by helping disseminate the poison charts prepared by AMA for home use.

In discussing accidents, the thought was advanced that everyone should become acquainted with the mouth-to-mouth method of resuscitation. The importance of children learning to swim was also emphasized.

There followed a brief discussion concerning previously proposed research programs on the use of antibiotics in the eyes of the newborn. It was then agreed that since the use of prophylactic silver nitrate solution was generally approved by the profession, it would be best not to go into the matter further at this time.

Dr. Spencer then reported on the work being done by the Fetus and Newborn Committee of the Virginia Chapter, American Academy of Pediatrics. He stated that the committee had three main objectives at the present time. It hopes to place a copy of the Academy Handbook on Newborn into the hands of all responsible parties, continue the work of the committee and its regional consultants, and work up a report based upon the statistical tables found on the back of the Academy Handbook. This report would be presented during the meeting of the Virginia Chapter in Williamsburg next spring. The committee wanted to go on record as strongly endorsing these projects.

Dr. Shreve then described the work being done at MCH Clinics. It was learned that these clinics provide prenatal care, but have patients make their own arrangements for delivery. As a consequence, a great number of these patients utilize the services of midwives during home deliveries. It was agreed that attention should be called to this particular situation in the hope that something might be done in the future to permit these patients to be cared for in a hospital—if only for a few days.

A question was raised as to whether throat cultures could be obtained from State Health Department laboratories. This brought out the fact that there are many physicians in the State who are not aware of the services performed by the State laboratories.

The committee then discussed the advantages of a quadrigen vaccine and believed that this might well be the answer to the polio immunization problem. The thought was expressed that perhaps the State Department of Health should also use a quadrigen rather than buying a triple vaccine and separate polio vaccine.

The attention of the committee was then called to "The Recommended Procedures, Standards, and Requirements for Licensing Day-Care Centers and Nursery Schools for Pre-School Children" as endorsed by the Tidewater Pediatric Society. The Executive Secretary was requested to make copies available to all committee members. It was agreed that the committee should approve these recommended procedures and standards in principle.

The milk-promotion campaign being waged by the National Dairy Council was briefly discussed, and the thought was once more expressed that the importance being placed on milk consumption far outweighs the actual need.

The committee was of the opinion that more and better facilities are needed in Virginia for mentally deficient children. Better control over existing private homes was also believed to be badly needed. The committee mentioned the very fine job Dr. Nagler has done at the Lynchburg Colony and cited this as an example of what can be accomplished. Several committee members believed that this is a field which the church might very well explore further. Some of the very best facilities for mentally deficient children are church controlled and supervised.

There being no further business, the meeting was adjourned.

William E. Harman, M.D., *Chairman*

Advisory to the Department of Public Welfare

The Committee met with the Department of Public Welfare on December 11, 1959, and May 20, 1960, in the Board Room of the State Department of Welfare and Institutions in Richmond, Virginia. During these two meetings the following items were discussed:

(1) Facilities for the aging—homes and nursing homes.
(2) Financing hospital care of the indigent.
(3) Standards of eligibility under the State-Local Hospitalization Program.
(4) Use of public assistance funds for payment of hospital costs:
  (a) coverage
  (b) certification of medical needs
  (c) limitations on number of days covered
  (d) rate
(5) Current expenditures for medical care for aged persons through the public assistance and State-Local Hospitalization Programs.
(6) Problems relating to institutional care of public assistant recipients.
(7) Charge by hospital for medical reports.
(8) Charges for drugs and the use of drug lists.

The Department of Public Welfare has expressed appreciation to the Committee for advice about some of the problems encountered in handling the medical phases of

its program, and The Medical Society of Virginia should feel its responsibility in offering services where needed. It is felt by the Committee, as well as the Department of Public Welfare, that there should be a close liaison between the various local medical societies and the local departments of public welfare. During the two meetings held this year, one before and one after the meeting of the State Legislature, most discussion was had relative to the financial problems, as may be seen by reference to the topics of discussion mentioned above. To show that we should be interested in these programs, we are quoting below the current expenditures for medical care for the aged through Public Assistance and State-Local Hospitalization Program over a twelve-month period:

"Virginia is now spending a substantial sum of money for the medical care of elderly persons, exclusive of expenditures through specialized programs such as for the care of psychotic and tuberculous patients. Expenditures last year under the State-Local Hospitalization Program for persons 65 years of age and over amounted to almost $400,000. Nursing home care expenditures for old age assistance recipients are running at the rate of approximately $1,400,000 a year.

Other medical care, such as drugs, physicians' services and dental care, for public assistance recipients is currently being provided through two different methods—(1) through the inclusion of an allowance in the money payment to the recipient, and (2) a direct payment from general relief to the supplier of such service or care. During the fiscal year ended June 30, 1959, medical care payments from general relief directly to the vendor amounted to slightly less than $150,000. Probably at least 25 per cent of this amount, or approximately $37,500, was in behalf of persons 65 years of age or older. Our regular reports do not show the amounts allowed for medical care in money payments but a few years ago such allowances for old age assistance cases were estimated to average more than $3.00 a month for the entire caseload. This is probably a conservative figure and represents an annual expenditure of about $540,000.

It appears that the current annual rate of expenditures in Virginia for hospitalization, nursing home and other medical care for aged persons, other than under specialized programs operated through other departments, is between $2,375,000 and $2,400,000."

The reports of the Virginia Advisory Legislative Committee regarding the facilities for the aging and financing hospital care of the indigent were reviewed. It was noted that the General Assembly did not pass the necessary bills to carry out all the recommendations. However, the General Assembly did amend the State-Local Hospitalization law by providing for the promulgation of uniform eligibility standards as a guide for the authorizing agents to use as standards, if so desired. In that connection the Committee discussed the following problems: mainly, the length of stay in the hospital, length of convalescence, length of illness prior to hospitalization, family debts, and also the difference in the living cost in the various localities. The Committee suggested that as a first principle of measuring financial eligibility the current state public assistance standards be used with an additional allowance of not more than ten per cent (10%), plus consideration of unusual medical needs, debts, and insurance. Other factors for evaluating medical indigency would be considered on an individual basis:

(1) Resources, such as hospitalization insurance, savings, property, eligibility for care through special programs such as Veterans Administration, Vocational Rehabilitation, Cancer Control, etc.
(2) Nature and extent of illness, probable length of stay, size of bill, illness of breadwinner.
(3) Ability of responsible relatives to assist.

Counties and cities, it might be noted, are expected to collect from patients or their estates if they can pay, and the patients should be made acquainted with this fact when requesting the hospitalization.

The question of emergency admissions was discussed at length, and it was felt that there was need of closer screening of these admissions by both the hospital as well as the authorizing agents. In this connection it was felt that co-operation of the physician in attendance could help materially.

It was also noted that the General Assembly amended this statute so hospitalization could be included in the Federal assistance categories; that is, old age assistance, aid to the blind, aid to dependent children, and aid to the permanently and totally disabled. In this connection the question of eligibility was discussed at some length. The Department was faced with policy decisions as to the various conditions for which hospitalization would be paid from public assistance funds. There was a general feeling that there are many unknown factors to be considered in initiating hospital care under public assistance, and that a conservative approach should be taken at the outset.

Other items on the agenda were discussed but no definite conclusions reached at this time.

G. B. Setzler, *Chairman*
A. L. Carson
Thomas E. Smith
Charles H. Lupton
Horace E. Kerr

National Legislation

This committee is composed of the councilors from every Congressional District.

On account of the pressing legislation having medical significance, this has been a busy year. On numerous occasions your chairman has called on members of the committee to contact their congressmen. I wish to publicly thank these gentlemen individually and collectively for the yeoman service they have rendered.

In March the entire committee met in Washington with staff members of the A.M.A. Following this, the committeemen contacted their own congressmen, and met in the Capitol for a luncheon meeting in the Speaker's private dining room. The two senators and all ten congressmen were present. Various pieces of legislation were discussed both by the committee members and particularly by the members of Congress. Honorable Howard W. Smith, 8th Congressional District and Chairman of the Rules Committee of the House of Representatives had this

to say, and I quote it fully since it is of such great importance to all of us:

"I do not remember just what I said to the group of the Virginia Medical Society concerning their lack of participation in public affairs. Certainly it was not intended to single out the doctors but was used as an illustration of the alarming lack of interest, concern, and knowledge of the gradual drift of our country away from constitutional precepts into a socialized system of government.

Our legislation is being framed by organized, minority groups serving their own self interest while the vast majority of our sound-thinking, conservative citizens engrossed and busy with their own personal problems are not exerting the tremendous influence that they could exercise in arousing people to a realization of what is happening to their government, which, after all, is the most important business that any of us have.

Members of Congress are badgered, abused, and threatened by these minority groups, and Congressmen are naturally influenced by what they believe to be the majority sentiment.

I know of no group who as individuals have more personal contacts and influence with people than the doctors in their respective communities. If organized, they could be a tremendous influence to halt the headlong flight into socialism.

I will give you an illustration: The great national labor unions exercise a virtual veto power over legislation in the Congress. Last year when the Landrum-Griffin Labor Bill was before the Congress, following the disclosure of racketeering and lawlessness, there was very little hope at the beginning of the fight that effective legislation could be enacted. Suddenly, the American people became aroused. Congress was flooded with letters and telegrams from ordinary citizens that let Congress know that the people meant business. We carried the first test vote by less than a dozen. When the final vote came, we carried it by 303 to 125, and, as I recall, when it finally came to a vote in the Senate there was only one single vote against it. This vividly illustrates that the people still run this country when they take the trouble to do so.

That is what I was trying to say to your group, and no group is better fitted to aid in an educational campaign to halt our steady march down the road to socialism. Not just socialized medicine, but the many other projects, starting from a modest beginning and growing into great burdens upon an already overburdened budget."

With the impending elections of such paramount importance, your committee requests all physicians to heed this great statesman's advice.

Incidentally, the committeemen paid the expenses of this trip out of their own pockets, and the chairman is grateful to them.

President Barker, Dr. Fletcher Wright, Robert Howard and myself will attend regional meetings of the A.M.A. Council on Legislative activities in Hershey, Pennsylvania and French Lick, Indiana, during August.

VINCENT W. ARCHER, M.D., *Chairman*

National Emergency Medical Service

Since the National Plan for Civil and Defense Mobilization and the State Operational Survival Plan have both been approved and become operational it remains for the National Emergency Medical Committee of the Society to fill the vacant spaces on the organization chart and increase our efforts toward training personnel and expanding the use of protective devices such as shelters.

Disaster medical care is the responsibility of the State Department of Health. Since the Chief, Health, Medical and Special Weapons Defense, State Office of Civil Defense is also the Director of Chronic Disease Control of the Health Department and chairman, National Emergency Medical Care Committee of The Medical Society of Virginia, liaison is naturally closer than in most states. This liaison is being brought closer by the organization of the Division of Health Mobilization of the U.S.P.H.S. Region III U.S.P.H.S. and Region II OCDM have joined in a demonstration to coordinate and correlate disaster medical care by utilizing the services of inactive reservists of the P.H.S. to work with Health Departments, medical societies, medical schools and voluntary organizations. Their duties will consist of lectures, both professional and lay, training, assistance with local planning, and in liaison between the various elements composing the medical service.

The Operational Survival Plan in Virginia is designed to implement three things. First, continuity of state and local government, second, preparedness for any natural disaster and, third preparedness for any hostile attack upon this nation. All three are based upon the premise that disaster medical care will (a) save the greatest number of lives, (b) reorient and rehabilitate people, and, (c) assist in restoring production of economic goods and services.

In order to reach and obtain the assistance of more private physicians in our disaster medical care program the responsibility for medical care and administration of the program has been placed on the shoulders of the local health director. Virginia is fortunate in having the entire State well covered with able local health directors, and each, by the direction of the State Commissioner of Health, is responsible for administration of all medical services and the expansion of public health facilities in the political subdivision or divisions served by his health department. One of his prime responsibilities is the selection, from and with the assistance of the local medical society, of a private physician to head up the medical care program. This physician will have complete control of the care of both casualties and the patients seen during normal times, he will see to the staffing of emergency Civil Defense hospitals and first aid stations, he will see to the additional staff required for the expansion of already established general hospitals. Supplies will be the responsibility of the local health director, and the P.H.S. Inactive Reservist will assist both.

Each health director has been given a copy of the Medical Annex of the State Survival Plan, plus additional information on radiation, chemical and biological warfare including what we know of decontamination; information on all types of sanitation problems; and other miscellaneous data. This plan has in addition a survey

outline for communication, power and utilities, water, food and milk, drugs and supplies, and above all for critical manpower. There is also a prototype plan for operation.

Training in such subjects as First Aid, specific medical care, disaster nursing, radiological, biological and chemical warfare is continual. Speakers can and have been furnished for medical society meetings, and training films and literature are available where desired. The addition of the U.S.P.H.S. Inactive Reservists will be of great assistance in this training phase. Plans are under way to give a concentrated course in disaster care to all health directors and a course in radiological monitoring to about 200 sanitarians early this fall.

Training manuals for both registered and licensed practical nurses: Emergency Hospitalization services; Mortuary Services, and the Medical Annex to the State plan have been published.

There are 107 First Aid Stations available, 28 C. D. Emergency Hospitals prepositioned in the state, and 3 more are on order. Two 2,500 bed hospital centers for convalescent patients have been arranged for in event of a national disaster. Regarding future communications the F.C.C. has been requested to furnish a radio wave length for the use of health departments, Civil defense control centers and the larger hospitals. Plans in Virginia are now becoming operative at local levels, and the next year should show continued gain on our goal of total preparedness.

W. Ross Southward, Jr., M.D., *Chairman*
Charles R. Riley, M.D.
E. Cato Drash, M.D.
Alexander McCausland, M.D.
Frank A. Kearney, M.D.
Meyer I. Krischer, M.D.

Insurance

Your Committee had one meeting during the year, but as usual had a great deal of correspondence concerning the many phases of the varied insurance programs. Our meeting was held on January 22, 1960, at Hotel Roanoke in Roanoke. The meeting was called to order by Dr. A. F. Giesen, Chairman, and in attendance were Dr. Allen Barker, Dr. Robert S. Hutcheson, and Robert I. Howard, our State Secretary.

On the agenda the first item for consideration was the "Professional Liability Program". Representing the St. Paul Company were Mr. Don Clifford and Mr. Andy Sale. Much time was spent upon the review of the experience that we have had with the St. Paul Company since the program's inception in 1956. There was also comparison of the figures of 1957 and the years through December, 1959. The number of members participating in December, 1957 was 129; in January, 1959 there were 797; and in January, 1960, there were 1,169 or about 44% of the total number of members in the Society. Considering the potential of the total membership, the figures may be high or low depending on how many of the members may be retired, teaching, etc. and feel that the insurance is unnecessary. It was the opinion of the St. Paul representatives that participation is increasing on a satisfactory basis and in comparison with the figures of our last meeting we now have 372 additional doctors participating. This is a good growth when compared with other years and was undoubtedly influenced by the lower rates which we received effective March 3, 1959.

Our discussion next included the proposed premium adjustments. It was found that in every department except surgery the reduction rate was very conclusive. In the surgical group we found after same had been broken down that this would probably have to be increased due to the experience we have had in 1959. A proposal for 1960 was presented by the two gentlemen and the Committee agreed that with the sharp reduction in every department except surgery the surgical rate should be increased in order to meet the deficit which they had experienced. After due consideration and discussion it was decided to approve the proposal by St. Paul for 1960, accepting all the reductions and increasing the surgeon's rate from $17.50 to $20.00 (based on current rates at the time).

The last point for discussion with these gentlemen was the rate for x-ray therapy. It was felt that this should be reviewed and the Committee was promised that the matter would be studied thoroughly and a rate considered for therapy where it is not associated strictly with radiology.

The second item on the agenda covered reports of the Sickness and Accident program and the Major Hospital and Business Overhead program. There was nothing new concerning these and they seem to be going along nicely. We were assured by the companies involved that if any adjustments were due in the Sickness and Accident group in the future, we would receive same accordingly.

The last item on the agenda was "New Programs" which included the Midas Program and the Proposed Group Travel Plan. The Midas Program was deferred and will be taken up at a later date if deemed advisable by the Committee. Concerning the Proposed Group Travel Plan or accident group insurance, it was felt that this plan could be handled by local societies, if they desired, rather than on a statewide basis. Accident policies for our employees was discussed and this was referred to Council for its consideration.

The meeting was then adjourned, to meet again on called meetings during the year when necessary.

Andrew F. Giesen, M.D., *Chairman*
W. D. Lewis, M.D.
Guy W. Horsley, M.D.
J. R. B. Hutchinson, M.D.
Robert S. Hutcheson, Jr., M.D.
C. M. McCoy, M.D.

Liaison to State Bar Association

Your committee has had three meetings, all of which were jointly held with the Committee on Cooperation with the Medical Profession of the State Bar Association. The average attendance for these meetings was 74%, despite the fact that these physician members were widely scattered across the state.

Dr. John O. Boyd, Jr., served on a sub-committee headed up by Kenneth C. Redden, professor of law at the University of Virginia, to study the question of a medical malpractice panel. This sub-committee did a thorough and painstaking job in its studies and prepara-

tion of a report for the joint committee of doctors and lawyers. When this report was given at our last meeting, the insurance industry was represented by E. I. Bostwick of Travelers; E. C. Fisher, Jr., Aetna; W. Andrew Sale, St. Paul Mercury; and John B. Russell, counsel for St. Paul Mercury. A thorough discussion of the sub-committee report was made by not only the physicians and attorneys of the joint committee but the insurance representatives, as well.

The subjects discussed at the three meetings and the action taken are as follows:

1. Court appointed medical experts in personal injury cases.

No action was taken to recommend any such procedure, for your Committee was of a mind that the present rule of requiring the plaintiff to be examined by a physician of the defendant's choice is adequate protection for the defendant and that court appointed medical experts would not be feasible at this time. However, the matter was left open for further discussion, should new evidence be adduced.

2. Medical malpractice panel of physicians and lawyers to which medical malpractice claims may be presented for an opinion.

This occupied the greater portion of the time of the meetings. After much discussion and work by a sub-committee, it was resolved that the sub-committee present, at our next joint meeting, a resolution to be offered for adoption by the Virginia State Bar and The Medical Society of Virginia, setting up a panel of physicians and lawyers to render opinions in medical malpractice claims presented to the panel, in which opinion the panel would not undertake to make an award and the determination by the panel would not be binding on either party to the claim. It was felt that such a procedure would discourage ill-founded claims from being litigated and that the plaintiff in meritorious claims would be better enabled to find a physician willing to come to court and testify for him and, more particularly, the parties to such claims would have a common ground on which to negotiate settlement of such claims.

3. Summoning physicians, including service personnel, to court, to testify without prior notice or arrangement.

This is covered in the Standards of Principles but does not particularly name military service physicians. Commander Baker of the Portsmouth Naval Hospital, stated the case for military service physicians, who have the feeling that lawyers feel they can be summoned without any notice or compensation because they are employed for the government. Upon motion duly made and seconded, it was resolved that an amendment be made to the Standards of Principles under Section B. *Physicians as Witnesses* "that the above shall apply equally to military service physicians."

4. Should local joint meetings of the Medical Society and the Bar be continued?

It was the unanimous feeling of the joint committee that such meetings, if planned with a program, so as to be both social and educational, are the best therapy for creating good relations between the two professions. Upon motion duly made and seconded, it was resolved that all local bar associations be requested to continue to have such meetings and if none had been had, to inaugurate one as soon as possible.

5. Should attorney for the plaintiff pay medical expert witness fees for physicians testifying on behalf of the plaintiff when there is no recovery and no reasonable chance of being refunded by client?

It was recognized that under the Canons of Ethics, the lawyer is not responsible for the costs, including expert witness fees, in a law suit, and can only advance costs. The above question is really an individual one which should be recognized and settled between the attorney, his client and the physician. The lawyer should make every effort to have his client put up the cost of litigation and in those instances where there is a reasonable chance of the lawyer being refunded such costs by the client, it is proper for the lawyer to advance the expert witness fees, as well as other costs.

6. Should physicians employ lay collection agencies to collect their past due accounts?

It should be called to the attention of the physicians that some lay collection agencies who provide attorneys at law in collecting such claims are engaged in the unauthorized practice of law. Upon motion duly made and seconded, it was resolved that The Medical Society of Virginia make its members aware that it is unlawful for collection agencies to attempt to provide counsel for them in the collection of delinquent accounts and if such collection agencies do provide legal counsel, the physicians should be requested to report the matter to the Virginia State Bar.

Edward E. Haddock, M.D., *Chairman*
John O. Boyd, Jr., M.D.
William Dolan, M.D.
Geoffrey T. Mann, M.D.
T. A. Morgan, M.D.

Advisory to the Woman's Auxiliary

No formal meeting of the Advisory Committee was held during the year. The chairman consulted with the president of the Woman's Auxiliary several times. Mrs. Walter A. Porter, the president, has been very active and has done an excellent job in promoting the objectives of the Woman's Auxiliary.

J. Glenn Cox, M.D. *Chairman*
H. Hudnall Ware, Jr., M.D.
James D. Hagood, M.D.

Conservation of Sight

In the past year the Committee on Conservation of Sight has interested itself in two particular problems; first, the importance of visually testing school and preschool children and, second, the relationship of organized ophthalmology to optometry. Studies in regard to these two particular problems will be continued into the next year and it is hoped that a comprehensive report can be rendered next year.

DuPont Guerry, III, M.D., *Chairman*

Principles and Policies

The Committee had nothing referred for action during the year and consequently has no report.

Members of the Committee called attention to certain constitutional and by-laws revisions recommended in a

previous report, and also to the need for greater public knowledge and use of the Mediation Committee.

JOHN T. T. HUNDLEY, *Chairman*

Radiation Hazards

A number of meetings with Legislators and Representatives of the State Health Department were held, as a result of which the Legislature enacted and the Governor signed the Bill which follows:

SENATE BILL NO. 28

A BILL to require persons possessing, storing or using radiation machines and radioactive materials to register with the State Health Department, and to provide penalties for violations.

Be it enacted by the General Assembly of Virginia:

1. § 1. As used in this act:

(a) "Radiation" means and includes alpha, beta and gamma rays, X-rays, high speed electrons, neutrons, high speed protons and other atomic particles, but does not mean or include sound or radio waves, or visible, infrared or ultraviolet light;

(b) "Radiation machine" means any device that produces, or is capable of producing radiation;

(c) "Radioactive material" means any material that emits radiation spontaneously; and

(d) "Person" means any person, firm or corporation, and any political subdivision, institution or agency of the State.

§ 2. It shall be unlawful for any person to possess, store or use any radiation machine or radioactive material, other than a machine or material which is placed by any law of the United States under the jurisdiction or control of the Atomic Energy Commission and is under license by that Commission, unless such person shall register the same with the State Health Department. Such registration shall be on forms provided by the State Health Commissioner and the person registering such machines or material shall set forth, as to any machine, the type of such machine, the amount of radiation which it produces or is capable of producing, the use to which such machine is put, and the protective measures employed in connection therewith; and as to any radioactive material, the type and quantity of such material, the amount of radiation emitted by such material, the use to which such material is put, the manner in which it is stored, and the protective measures employed in connection therewith.

§ 3. This act shall not apply to:

(a) Electrical or electronic equipment operated at voltages less than twenty-five kilovolts, which are not primarily intended to produce radiation;

(b) Domestic television receivers;

(c) Radioactive material in quantities less than those which are generally licensed by the Atomic Energy Commission under Parts 30 and 40 of Title 10 of the Code of Federal Regulations in force on January one, nineteen hundred sixty; or

(d) All naturally occurring radioactive substances except the following:

(1) Radium, in quantities which emit, from unsealed sources, more than one-tenth microcurie of radiation, or from sealed sources, more than one microcurie of radiation.

(2) Thallium in quantities which emit from unsealed or sealed sources more than fifty microcuries.

(3) Polonium in quantities which emit from unsealed sources more than one-tenth microcurie of radiation or from sealed sources more than one microcurie of radiation.

§ 4. Any person failing or refusing to register with the State Health Department as required by this act shall be guilty of a misdemeanor and shall be punished by a fine of not less than ten nor more than one hundred dollars.

The Committee will meet with members of the State Health Department to discuss implementation of the Bill just as soon as the Commissioner is ready to go into this matter.

GEORGE COOPER, JR., M.D., *Chairman*

Walter Reed Commission

Your Committee takes pleasure in reporting that "Belroi", the Walter Reed birthplace, is being maintained by the Walter Reed Improvement League in a manner completely acceptable to your Committee and in accordance with conditions set forth three years ago.

The membership will recall that the Society agreed to assist the Improvement League by budgeting $500 each year for the cost of such maintenance and repair as might be necessary. A total of $214 was spent during 1959-60 for such things as patching of plaster, painting, repair of hearth, whitewashing of two rooms, grass cutting and removal of two very old trees.

Members are invited to visit this historic landmark whenever they are in the Gloucester area.

RAYMOND S. BROWN, M.D., *Chairman*
THOMAS E. SMITH, M.D.
H. L. SHINN, M.D.

American Medical Education Foundation

Once again your Committee must report that, although Virginia's contribution to the American Medical Education Foundation increased some $3,000 this past year, the most effective method for reaching individual physicians remains undiscovered. There is some encouragement, however, in the fact that the Foundation staff in Chicago is working closely with the Chairman and we believe an effective formula for Virginia will soon be found.

Actually, some real progress was made in 1959. For example, 268 Virginia physicians made direct contributions to AMEF—compared to 230 in 1958. These physicians contributed $11,302.50—an increase of almost $3,000. Physicians over the nation contributed $1,195,824.79—an increase of $75,780.10 over 1958. Your Committee sincerely believes that this battle by the nation's physicians to prevent further encroachment in the field of medical education is winning the respect of the entire country.

While the Committee is seeking more effective means of promoting this most worthy cause in Virginia, won't you do your part and make sure that you have contributed to the Foundation this year?

JOHN C. WATSON, M.D., *Chairman*
JAMES B. ADAMS, M.D.
RUFUS P. ELLETT, M.D.
CARRINGTON WILLIAMS, JR., M.D.

House

Your House Committee and the Headquarters Staff of your Society, in common with most newly-weds, are learning that two cannot live as cheaply as one, especially when they live in Windsor Farms. This observation was prompted by the discovery that our expenses at the new headquarters building will exceed our budget, largely due to yard care, increased oil consumption, a general rise in utility costs, higher taxes and several items of a non-recurring nature.

While every effort is being made to keep expenses to a minimum, it will probably be necessary to increase our building maintenance expense item in our 1960-1961 budget from $4,000 to $5,000. However, the convenience, efficiency, and satisfaction that arises from having a new office and headquarters building is commented on by all who use its facilities and more than offset the added expense. Fortunately, we have not had to draw on the building repair fund provided for in our current budget.

A slight fire occurred this May in the funace room as a result of a faulty electrode in the burner unit. The damage was negligible and entirely covered by insurance.

The building maintenance expenses from October 1, 1959 through June 30, 1960 was as follows:—

Janitor & Janitor Supplies	$1,309.34
Yard Care	487.04
Electricity & Water	840.80
Fuel Oil (3,915 gals.)	541.41
Furnace Maintenance	20.50
Taxes	1,671.88
Insurance	11.14
Non-Recurring Items	
Janitor supply cabinets	115.00
New sign and repainting	81.00
Fence	45.00
Water-proofing walls	100.00
Total for nine months	$5,223.11
Applied against this is amount contributed by the VAGP and other affiliated organizations	—796.96
	$4,426.15

Harry J. Warthen, Jr., M.D., *Chairman*
Fletcher Wright, M.D.
Donald Daniel, M.D.

Medicare Advisory

Although your Committee held three meetings during the past year, the number of cases requiring special study and review decreased sharply. This, in itself, is an encouraging sign and indicates that physicians in Virginia are now well versed in the mechanics of providing care under the Medicare Program.

Perhaps, however, it should be mentioned that your Committee has been requested by the government to stress again and again the fact that participating physicians should always charge their usual fee when such fee is lower than that allowed under the program. The fees negotiated by your Society are necessary "maximum" fees and were never intended to be used in lieu of a physician's usual lower fee. Sound administration requires that this policy be clearly understood.

Your Committee is fully aware of the unfortunate delays to which some physicians are subjected when claims are submitted for review. The patience and understanding of these doctors is sincerely appreciated.

W. Linwood Ball, M.D., *Chairman*
David W. Scott, Jr., M.D.
Hunter B. Frischkorn, M.D.
Guy W. Horsley, M.D.
William E. Byrd, M.D.

Maternal Health

The Maternal Health Committee of the Medical Society of Virginia met on October 5, 1959, March 16, 1960, and July 13, 1960.

The October meeting was the annual breakfast meeting in conjunction with the annual meeting of The Medical Society of Virginia. Dr. Washington C. Winn, President of the Virginia Obstetrical and Gynecological Society and Dr. Lee Buxton, Professor of Obstetrics and Gynecology at Yale University were welcomed guests.

The Chairman of the Committee reported that legislation proposed by this Committee, regarding immunity from court actions of persons and information relating to maternal deaths, and that relating to improving the standards of maternity hospitals, were to be presented to the House of Delegates of The Medical Society for consideration and presentation to the State Legislature. During the year, this Committee has assisted the Committee on Maternal Welfare of the State of Massachusetts by assemblying information regarding the pathological state of septic shock, which they were studying.

The Committee also endorsed the practice of the Bureau of Maternal and Child Health of the State Health Department in writing to individuals concerned when birth certificates were not complete in regards to prophylactic eye care of the newborn. Dr. Buxton was much impressed with the interest, enthusiasm and methods used in obtaining information on maternal deaths and the completeness of the information secured with the wholehearted cooperation of the physicians of the Commonwealth.

The March meeting was held in Richmond. Mr. Robert I. Howard, Executive Secretary of The Medical Society of Virginia, reported that the bills proposed by this Committee regarding confidential information on maternal deaths and the strengthening of the requirements for maternity hospitals had passed the legislature and signed into law by the Governor. The Committee has undertaken a study whereby the classification of maternal deaths in Virginia will conform as closely as possible to the classification recommended by the American Medical Association. The Committee was of the opinion that copies of the hospital records of all maternal deaths would be very helpful to the Committee in its deliberation and classification of such deaths.

The July meeting was held in Charlottesville on July 13th. Mr. Dean L. Huxtable, State Registrar of the Bureau of Vital Statistics, presented the changes in the law regarding reporting of all fetal deaths in all pregnancies. The new birth and death certificates to be used

by the State of Virginia were described and this Committee approved these changes as stated.

The Committee will recommend to the Legislative Committee that the word "sanitary" be deleted from Sec. 32-329 of the Health Laws of Virginia.

The Committee approved the new classification on maternal deaths for Virginia which was suggested by the Committee on Maternal and Child Care of the American Medical Association.

This classification will now be used in the classification of all maternal deaths in Virginia. With the enactment of the immunity law, the Committee recommends the resumption of the procedure of sending a report of the classification of each maternal death to the attending physician.

A copy of the motion approved in July 1959 regarding the closest supervision of the interne and resident staffs by the attending staff is to be sent to each hospital, the president of the staff and the chief of obstetrics.

Eugene S. Groseclose, M.D., *Chairman*
A. Tyree Finch, M.D.
H. Hudnall Ware, Jr., M.D.
L. L. Shamburger, M.D.
George S. Hurt, M.D.
Mason C. Andrews, M.D.
Chester L. Riley, M.D.
William M. Gammon, M.D.
K. Charles Latven, M.D.
W. J. Hagood, M.D.
James J. Dunne, M.D.
W. N. Thornton, Jr., M.D.
J. H. Marsella, M.D.

Traffic Safety

Your Committee would again like to call attention to its 1959 report, which contained nine recommendations for consideration by the Society and Virginia's legislative bodies. The Committee sincerely believes that firm and positive action concerning these recommendations must be taken if an answer to our highway problem is ever to be found.

The Chairman presented the Committee's views in detail before the Council in February and his editorial on the subject was published in the May, 1960, issue of the Virginia Medical Monthly. He also served on a Sub-Committee of the Virginia Advisory Legislative Council studying possible new legislation having to do with drunken and drinking drivers.

Although the Committee is disappointed at the apparent indifference to this problem displayed by both the public and General Assembly, it will continue to work toward the day when its objectives are realized.

Fletcher D. Woodward, M.D., *Chairman*
DuPont Guerry, III, M.D.
John Meredith, M.D.
Charles Frankel, M.D.
Louis P. Ripley, M.D.

Liaison To United Mine Workers of America

The Liaison Committee held a meeting in Charlottesville on May 7, 1960, with all but one member of the committee present. Also attending this meeting were the area medical director and his assistant of the United Mine Workers of America, District 28, and the chairman of the Liaison Committee of the State of Tennessee.

The purpose of this meeting was to discuss the establishment of out-patient clinics in the remote areas of Southwest Virginia. It was brought out in this meeting that two clinics have been established in Southwest Virginia, one in Dante and one in Clintwood. There was conflicting testimony as to the sponsorship and the running of these clinics and how they were supported.

We were unable to come to any definite conclusion in this meeting so a special sub-committee was appointed consisting of Dr. Kinloch Nelson, Dr. Allen Barker, and Dr. Linwood Ball to go into this area and look over the proposed sites of future clinics and also to visit the two clinics already in operation.

The trip was made on July 8, 1960, and July 9, 1960, at which time the committee covered the territory involved. A short meeting of this sub-committee was held and a report is to go back to the Liaison Committee after they have gotten further information from other sources. This will be done as soon as the sub-committee can be gotten together and a report will be sent to the Liaison Committee.

Automation in the mines has greatly reduced the number of miners and the resulting cut-off in this area has caused a large influx of patients not covered under the miners welfare. Their medical care has become the problem of the proprietary hospitals and the clinics in this area. We certainly hope that some solution can be worked out in which the unemployed miners and their dependents can have further coverage and more medical care.

This problem, we feel, can extend to the rest of the State as employment in different industries varies and their medical coverage program changes. With the help of the Virginia Council on Health and Medical Care, the United Mine Workers of America, and the local physicians, we feel that a solution can be reached to this very pertinent problem.

James P. Williams, M.D. *Chairman*
Kinloch Nelson, M.D.
Mack I. Shanholtz, M.D.
Allen Barker, M.D.
Rufus P. Brittain, M.D.
W. Linwood Ball, M.D.
Thomas B. Hunter, M.D.
William F. Maloney, M.D.
H. B. Mulholland, M.D.
Lewis Ingram, M.D.

Rehabilitation

The Rehabilitation Committee which also functions as the Medical Advisory Committee of the Vocational Rehabilitation Service of the State Department of Education, has been active during the year.

Members of the committee, representing several specialty fields and living in various geographical areas, continually provide consultative services to the professional staff of the Rehabilitation agency. In the course of a year professional advice is given on a number of situations

involving complicated medical problems. The Agency was assisted in the revision of parts of the professional fee schedule and the development of policies regarding the provision of physical restoration services to eligible handicapped individuals.

Several members of the committee have worked actively with those responsible for staff training in the Rehabilitation Service in planning for and providing training for the professional staff of the Agency. In recent conferences of the professional staff, training has been provided in the fields of general surgery, problems of paraplegics, and mental disorders.

Roy M. Hoover, M.D., *Chairman*
George A. Duncan, M.D.
J. R. Blalock, M.D.
Leroy Smith, M.D.
A. L. Carson, M.D.
G. S. Fitz-Hugh, M.D.
Reno Porter, M.D.
Charles L. Savage, M.D.
F. J. Wright, M.D.
Frank B. Stafford, M.D.
A. Ray Dawson, M.D.
J. Treacy O'Hanlan, M.D.

Aging and Chronically Ill

This committee continued on with practically the same membership as the previous year. On November 20, 1959, a meeting was called by the American Medical Association at the Southern Hotel in Baltimore to plan for a Regional Conference on Problems of the Aging. Virginia was represented by our President, Dr. Barker; the Executive Secretary, Mr. Howard; and the Chairman of this Committee, Dr. Bates. This was an afternoon session and plans were drawn up for the full meeting to be held in March, 1960.

On December 15, 1959, the Virginia Commission on Aging held a full day's Conference on Problems of the Aging at the John Marshall Hotel in Richmond. A large number of people attended from all phases of Virginia life. Many prominent people spoke, among them a member of our Committee, Dr. John Lynch. This conference touched on many different problems, medical and otherwise, concerning the aged population. Dr. Lynch discussed the attitude of the physician toward medical problems of these people and objected to forced socialism where it was not needed, in our every day existence. The afternoon session of this meeting was devoted to probing into individual segments of need, and those attending were assigned to various groups to pursue individual problems further. Many of our Committee members attended this session and were assigned to the group studying "Health, Medical Care and Mental Hygiene". Some were placed in other fields of study to act as advisors. The members of the medical profession who were involved in this work showed considerable unanimity of opinion in their conservative attitude and the report of this group was not as socialized in its context as it could have been.

On December 30, 1959, this Committee met and went over its past work and proposed activities. It was felt that encouragement of local Committees on Problems of the Aging should be carried on as the primary aim of the State Committee. Literature had been sent out to each Committee Chairman, in 1959, with ideas of projects and approaches to problems in which the local Committee could make themselves useful. The formation of a Joint Council to Improve the Health Care of the Aged, in Virginia, was discussed. This has been done in many other states and also on a national scale. It was decided to ask permission of the Council to form such a group.

The Council of the Medical Society met on February 28 and permission was unanimously granted for our Committee to proceed with the formation of a joint body, with the Virginia dentists, nursing home operators, and hospital administrators. These parties being the principal purveyors of health care to the aged, we felt that there probably would be many mutual problems we could work on together. The wheels were thus started on this project.

The American Medical Association's Regional Conference for Delaware, Maryland, Virginia, New Jersey, West Virginia, and the District of Columbia was held in Baltimore at the Southern Hotel on March 30-31, 1960. All members of this Committee were invited and several attended as did the President of the Society. Two days of talks, discussions, solutions to problems, and ideas for the aged citizens were unfolded. Large numbers of people from all the regional states attended, and participated. Dr. John T. Hundley of this Committee, and Speaker of our House of Delegates, gave an address, as did Mr. Maury Hubbard of the Virginia Farm Bureau Federation. This conference was similar to several others held previously in various areas of the United States by the A.M.A.

On April 22nd and 23rd the American Medical Association held a Conference on Problems of the Aging in Chicago. This summarized the best of the ideas brought out by the regional meetings and developed the theme of more leadership at the county level. Regional groups met and discussed the situation in their areas. Several addresses were made concerning medicine's role in this field. The chairman of this committee attended and participated in this meeting.

A meeting was held on May 16th at headquarters in Richmond, with representatives of the Virginia Dental Society, Virginia Hospital Association, and Virginia Association of Nursing Home Operators. Several members of our committee attended and some of our common problems were discussed. It was decided that it would be helpful to all of us if we could have an organization to which we could bring our joint problems, and a decision to formally develop such a group was agreed upon.

The necessary correspondence was carried out, with the Medical Society assuming the leadership role. Delegates were appointed by each of the above named organizations and the meeting to form such a group was called on July 21st. Meeting at the Jefferson Hotel in Richmond, the Virginia Joint Council to Improve the Health Care of the Aged was established. Dr. Bates, as Temporary Chairman, called the meeting to order, had the members present introduce themselves, and then discussed the aims and purposes of such a Council. It was proposed that the membership include four representatives from each of the above named organizations and that cooperation with the National Joint Council and Virginia Commission on the Aging be among the aims of this group. Its primary objects are to exchange information on activities and plans of its members and other organizations in the field of aging, to coordinate related programs, and develop

jointly sponsored projects, and to disseminate information on health care of the aged.

Thus we have summarized the activities of this Committee and its members this year. At the time this report is written it is not clear what course Congress will take when it returns to Washington for its final pre-election convulsion following a political convention race to see which party can promise the most to the block of several million aged voters. It would appear from the platforms of both parties that a firm effort will be made to give away medical care to these people, and their responsibility to provide for themselves, whether able or not, in exchange for their vote. Little attention is paid to the fact that 65% of older people can take care of their own social, physical, and economic problems if allowed to do so, and most of the others can obtain medical attention when needed, if they desire it and ask for it. The problems of a small group of the aged are taken as the arguments for all the aged.

Many ideas have been developed in the studies recently made of the problems in the over-65 group. Business should continue to hire these people. They are often as able, more conscientious, more safety conscious, more loyal, and have better work records than the younger groups. They are often better learners because they are more settled and concentrate harder, contrary to what many think. They are independent and prefer to make their own decisions. There are no diseases of the aged, as such. Some statistical studies show that 46% of those over 65 have some chronic medical condition, but if the entire work force of all ages is studied, these same statistics reveal that 47% (of the work force) have chronic medical problems.

The problems of the aged have become a statistician's heaven, with the social planners developing the needs and "demands" of this age group, ever mindful of their fifteen million votes. The more conservative side argues that most of these people are adequately cared for by themselves or others, prefer to make their own way, should be allowed to continue productive work on a reduced load if desired, but should not have their independence whittled away by more governmental paternalism. It would appear, however, that the hoped for fifteen million votes from this group are more attractive than the less than 200,000 votes of the practicing medical profession. The politicians do not always think of the most good for the most people, though they may use those words.

Little more will be attempted by this Committee until the air clears and the course of events is shaped by Congress.

H. C. Bates, Jr., M.D., *Chairman*
H. B. Mulholland, M.D.
Ira L. Hancock, M.D.
Mack I. Shanholtz, M.D.
Malcolm H. Harris, M.D.
Louis P. Bailey, M.D.
John P. Lynch, M.D.

Mental Health

The Mental Health Committee met on April 20, 1960, and again on July 20, 1960.

On October 8 and 9, 1959, the chairman represented the committee at a conference program sponsored by the Southern Regional Education Board in Atlanta, Georgia. The program concerned the training of physicians in psychiatric principles and dealt chiefly with ways and means of providing postgraduate training in psychiatry for physicians in general practice.

The second conference attended by the chairman was the Sixth Annual Conference of Mental Health representative of state medical associations sponsored each year by the Council on Mental Health of the American Medical Association. The meeting was held in Chicago on November 20 and 21, 1959. The general theme of the meeting was: "Organized Medicine and Its Relationship to the Hospitalized Psychiatric Patient". Most every state was represented at this conference, and the chairman of this committee feels that it is well worth while for The Medical Society of Virginia to be represented at these conferences each year.

It was the unanimous opinion of the committee that an effort should again be made to secure space on the program of the annual meeting of the Medical Society to be held at Virginia Beach on October 9-12 for a speaker to represent the Mental Health Committee. The chairman of the Program Committee of The Medical Society of Virginia was contacted by letter and by telephone in April, and the committee's wishes were made known to him. It is regrettable that the chairman did not see fit to allot us space on the program, this being the first time in four years we have not been represented on the program by a guest speaker of national prominence.

By invitation Dr. William F. Sheeley, Chief of the General Practitioner Education Project of the American Psychiatric Association, addressed the committee at its first meeting. The subject of Dr. Sheeley's discussion was the American Psychiatric Association's Postgraduate Psychiatric Training Program for Those Physicians in General Practice. Dr. Sheeley's discussion was well received, and it will be seen later on in this report that the committee made recommendations concerning such a program in the State of Virginia.

The committee was pleased that the Neuropsychiatric Society of Virginia once again appointed a liaison committee to meet with our committee. Two members of the committee and the president of the Neuropsychiatric Society of Virginia were present at the second meeting of our committee. There was considerable discussion as to what the two committees, by working together, could best accomplish. It was agreed that an effort should be made to have the State Society Program include at least one paper or panel dealing with psychiatry each year if balance is to be maintained. The two committees also discussed the possibility of sponsoring a psychiatric training program for physicians in the general practice of medicine.

It was the feeling of the members of the Mental Health Committee that the Neuropsychiatric Society of Virginia should be contacted and informed of our desire for such training programs to be initiated in the State of Virginia. It was thought that as a preliminary step perhaps the president of the Virginia Academy of General Practice should be invited to appoint a representative to attend meetings of the Neuropsychiatric Society of Virginia to discuss ways and means of implementing such a proposal. As a next step the Mental Health Committee should con-

tact the medical schools and the Department of Mental Hygiene and Hospitals in order to learn whether or not they would assist in the development and presentation of such courses. Should the courses be arranged by the Neuropsychiatric Society of Virginia, the Virginia Medical Monthly could be used for publicity purposes.

One member of the committee reported concerning the undesirable situation as now exists in his area that involves the commitment of mentally ill patients to public and private psychiatric hospitals. He reported that commitments are held in the Norfolk area only once a week, and it is not unusual for patients to be held in jail for a full week. It was agreed by the committee that this situation should be brought to the attention of the local medical society and that the Mental Health Committee of The Medical Society of Virginia go on record as deploring such treatment of the mentally ill.

Despite the progress that has been made in some areas of Virginia relative to adequate coverage for mental illness by the Blue Cross and Blue Shield insurance plans, we are aware that in some areas of the state the situation has not improved. The committee also took note of the fact that most of the proposed government health insurance plans for the aged make no provision for coverage of mental illness. Also the new insurance plans for Civil Service employes make only token coverage for mental illness. Therefore, it is strongly recommended to the Council of The Medical Society of Virginia that all Blue Cross and Blue Shield plans in Virginia, as well as other health insurance plans, be urged to adopt equality of coverage for psychiatric and emotional disorders.

It was regretted that a representative from the Mental Health Committee of the Woman's Auxiliary of The Medical Society of Virginia was unable to attend either of the two meetings of our committee.

The chairman wishes to express to the remainder of this committee and to Robert I. Howard, executive secretary, his appreciation for their cooperation and assistance in the formulation of this report.

J. Rudolph Saunders, M.D., *Chairman*
Joseph R. Blalock, M.D.
Walter J. Brennan, M.D.
Thomas S. Edwards, M.D.
Milton Goldman, M.D.
R. Coleman Longan, Jr., M.D.
G. Edmund Stone, M.D.

Federal Medical Services

The Committee on Federal Medical Services has followed the legislation proposed and put into effect during the year—which may affect the private practice of medicine.

(1) The Medicare Program has been further curtailed by the utilization of facilities available to those beneficiaries who live in the area where services are available.

(2) The Care of Veterans

The House of Delegates of the A.M.A. has reaffirmed its belief that the Veterans Administration should provide care only for service-connected disabilities, but noted that under existing law, veterans whose illness constitutes economic disaster should not be replaced by those suffering short remedial ills which at worse constitute financial inconvenience. It has been recommended that a realistic definition of inability to defray necessary expenses be made, for at present the veteran is the final judge of his own ability to pay. The A.M.A. has urged state associations to provide assistance in obtaining needed care for veterans with financially catastrophic disabilities, and help the veterans determine the probable cost of private care, so that they may accurately judge their ability to pay—considering the extent of their insurance or prepayment coverage.

The basic policy of the medical profession, that care of non-service connected disabilities is not the proper responsibilty of the Federal government, remains unchanged.

(3) The Hometown Medical Program for the Veterans

The House of Delegates of the A.M.A., after a study of the three different types of agreement, feel that the Intermediary Contract has the most merit. The Intermediary Contract is the program administered by an agency chosen by the Society, and the fees negotiated with the Medical Society.

(4) The Federal Employees Health Benefits Act, which became effective July 1, 1960, provides care either under a Blue Cross-Blue Shield program, or under a private insurance company. The National Association of Blue Shield Plans has developed high level and low level programs, to be serviced by those Blue Shield plans participating in the Federal Employees Account.

The Federal government pays approximately one-half of the cost of the premium, and the employees receive many added protections.

It is noted that the fee schedule is considerably lower than the previous Blue Cross-Blue Shield plans, and their schedules. Major medical benefits will be underwritten by some Blue Cross-Blue Shield plans, and by Medical Indemnity of America, which will have a one hundred dollar deductible out of pocket toward the cost of such services for the high level program, and a two hundred dollar deductible for the low level plan.

(5) A Forand type bill is still under consideration by the Congress, which provides Medical Care for the beneficiaries of Society Security, but as yet this has not been acted upon.

Your Committee will continue its study of legislation affecting the private practice of medical care, and will endeavor to keep you informed.

John T. Hazel, M.D., *Chairman*

AMA Delegates

This report will cover only a few of the more important matters considered by the House of Delegates of the AMA while in session at Miami Beach from June 13-16. The Medical Society of Virginia was represented by all three of its Delegates, along with two Alternates who were on hand to observe the proceedings.

Perhaps the most important matter to come come before the House was that having to do with health care of the aged. After considering a number of reports and resolutions on this politically charged subject, the House adopted the following statement as the official policy of the American Medical Association:

"Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care

for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the federal government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice should be preserved. The use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the American Medical Association."

Dr. Louis M. Orr, retiring AMA president, requested the House to go on record as favoring more jobs for the aged, voluntary retirement and a campaign against discrimination because of age, whether it be 40 or 65.

Mail order drug houses and the development and marketing of pharmaceutical products were matters on which the House took action. The House agreed with representatives of the pharmacy profession that the practice of filling prescription drugs by mail is not in the best interest of the patient, except, of course, where unavoidable because of the patient's geographic isolation. It was pointed out that such methods result in the loss of the personal relationship existing between patient-physician-pharmacist at the community level and which is essential to the public health and the welfare of patients.

The Board of Trustees was directed to request the Council on Drugs "to study the pharmaceutical field in its relationship to medicine and the public, to correlate available material, and after consultation with the several branches of clinical medicine, clinical research and medical education and other interested groups or agencies, submit an objective appraisal to the House of Delegates in June, 1961."

A revised statement of the "Scope, Objectives and Functions of Occupational Health Programs", originally adopted in June, 1957, was approved. The statement contains no fundamental alterations in AMA policy or ethical relationships, but does add important new material.

In approving the revised guides for occupational health programs, the House accepted a suggestion that the AMA Council on Occupational Health undertake a project to study and encourage the employment of the physically handicapped.

The House also approved the final report of the Committee to Study the Relationships of Medicine With Allied Health Professions and Services. This report covers the present situation, future implications and recommendations, including guiding principles and approaches to activate physician leadership. It was strongly recommended that activity in this very important area be continued.

Two actions were taken involving relations between the medical profession and the National Foundation. A statement of policies for the guidance of state medical societies was adopted with the recommendation that it also be adopted by component medical societies. These policies cover such subjects as membership of medical advisory committees at chapter level, functions of these committees and basic principles concerning financial assistance for medical care, payment for physicians' services and physicians' responsibilities for constructive leadership in medical advisory activities.

The Board of Trustees was directed to authorize further conferences with leaders of the National Foundation on the problem of poliomyelitis as it relates to the betterment of the public health and to consider further joint action toward the eradication of polio.

In taking action on a wide variety of subjects, the House also:

Strongly reaffirmed its support of the Blue Shield concept in voluntary health insurance and approved specific recommendations concerning AMA-Blue Shield relationships;

Approved a contingent appointment of not more than six months for foreign medical school graduates who have been accepted for the September, 1960, qualification examination;

Decided that the establishment of a home for aged and retired physicians is not warranted at this time;

Reaffirmed opposition to compulsory inclusion of physicians under Title II of the Social Security Act and recommended immediate action by all AMA members who agree with that position;

Urged reform of the federal tax structure so as to return to the states and their political subdivisions, their traditional revenue sources;

Requested the Board of Trustees to initiate a study of present policy regarding the required content and method of preparing hospital records;

Directed the Board of Trustees to develop group annuity and group disability insurance programs for Association members; and

Expressed grave concern over the indiscriminate use of contact lenses.

Members are urged to read the detailed accounts of these and many other actions of the House as reported in the AMA Journal and The AMA News.

Vincent W. Archer, M.D.
W. Linwood Ball, M.D.
Allen W. Barker, M.D.

Cancer

The Cancer Committee has had only one request for information pertaining to the organization of the Diagnostic Tumor Clinic during the past year. Certification will be considered when a formal application is received.

Re-certification of the existing Tumor Clinics, this year, will be made largely on the basic information obtained from the Tumor Registry at a meeting to take place at the time of the annual meeting.

At this meeting it has been requested that the Committee review the rates paid by the American Cancer Society, to Roentgenologists, for services rendered to indigent patients.

John R. Kight, M.D., *Chairman*
George Cooper, Jr., M.D.
Charles L. Crockett, M.D.
Richard N. deNiord, M.D.
William D. Dolan, M.D.
Claiborne W. Fitchett, M.D.
Walter C. Fitzgerald, M.D.
Carey A. Stone, Jr.,M.D.
W. Ross Southward, Jr., M.D.

DELEGATES TO THE 1960 MEETING
THE MEDICAL SOCIETY OF VIRGINIA

Where no name is listed it is indicative that no delegate or alternate was reported in time for publication.

Delegates	*Alternates*
Accomack	
Dr. Walter A. Eskridge	Dr. Donald F. Fletcher, Jr.
Albemarle	
Dr. Cary N. Moon, Jr.	Dr. George Spence
Dr. Thomas S. Edwards	Dr. Harry Lee Archer
Dr. G. Slaughter Fitz-Hugh	Dr. Guy Hollifield
Dr. McLemore Birdsorg	Dr. J. L. Guerrant
Alexander	
Dr. John C. Watson	
Dr. Milton R. Stein	
Dr. F. Preston Titus	
Alleghany-Bath	
Dr. William Fletcher	Dr. R. L. Claterbaugh
Dr. Donald Myers	Dr. Jeanette Jarman
Amherst-Nelson	
Arlington	
Dr. K. Charles Latven	Dr. John T. Hazel
Dr. Howard O. Mott	Dr. T. A. McGavin
Dr. J. R. B. Hutchinson	Dr. W. C. Welburn
Augusta	
Dr. J. H. Thomas, Jr.	Dr. A. R. Gillespie
Dr. McKelden Smith	Dr. D. E. Watkins
Dr. J. Treacy O'Hanlan	
Bedford	
Dr. W. V. Rucker	Dr. O. B. Darden, Jr.
Botetourt	
Dr. Whitfield Rankin	Dr. Graham Stephens
Buchanan-Dickenson	
Dr. J. C. Moore	Dr. J. P. Williams
Dr. J. C. Sutherland	Dr. J. P. Sutherland
Charlotte	
Culpeper	
Dr. O. Kyle Burnette	Dr. C. G. Finney
Dr. Robert L. Cassidy	
Danville-Pittsylvania	
Dr. J. J. Neal	Dr. C. G. Gaddy
Dr. Snowden C. Hall, Jr.	Dr. W. C. Fitzgerald

Delegates	*Alternates*
Fairfax	
Dr. John Prominski	Dr. Roland Bieren
Dr. Peter Soyster	Dr. Carl Parker
Dr. J. D. Zylman	Dr. J. A. Provenzano
Fauquier	
Dr. Robert W. Iden	Dr. Paul K. Candler
Floyd	
Dr. F. Clyde Bedsaul	Dr. A. N. Guthrie
Fourth District	
Fredericksburg	
Dr. James G. Willis	Dr. John L. Smoot
Dr. D. W. Scott, Jr.	Dr. T. Stacy Lloyd
Dr. Claude A. Nunnally	Dr. John W. Painter
Dr. Thomas B. Payne	
Dr. W. D. Liddle, Jr.	
Halifax	
Dr. Lloyd Eastlack	Dr. James Hinton
Hampton	
Dr. Frank Kearney	Dr. Oscar Ward, Jr.
Hanover	
Dr. Claude Kelly	Dr. Mann T. Lowry
James River	
Dr. W. A. Pennington	Dr. Garland Dyches
Dr. J. H. Yeatman	Dr. A. C. Whitley
Dr. Russell N. Snead	Dr. W. S. Lloyd
Lee	
Dr. G. B. Setzler	Dr. B. H. Owens
Loudoun	
Dr. Earl E. Virts, Jr.	Dr. Keith Oliver
Louisa	
Lynchburg Academy	
Dr. Charles W. Whitmore	Dr. J. W. Davis, Jr.
Dr. J. R. Saunders	Dr. L. F. Somers
Dr. H. H. Hurt	Dr. H. L. Riley

Delegates	*Alternates*
Mid-Tidewater	
Dr. J. R. Parker	Dr. A. W. Lewis, Jr.
Dr. William H. Hosfield	
Dr. Carl A. Broaddus	
Dr. J. W. Chinn	
Dr. A. L. Van Name, Jr.	Dr. Harold W. Felton
Dr. R. B. Bowles	Dr. H. L. Shinn
Dr. Thomas E. Smith	Dr. Raymond Brown
Newport News	
Dr. Russell Buxton	Dr. F. S. Beazlie
Dr. J. W. Tankard	Dr. Q. J. Legg
Dr. F. A. Carmines	Dr. S. H. Mirmelstein
Dr. E. V. Siegel	Dr. I. F. Nesbitt
Norfolk	
Dr. W. Callier Salley	Dr. Aubrey L. Shelton
Dr. W. Claiborne Fitchett	Dr. G. S. Taylor, Jr.
Dr. Mason C. Andrews	Dr. John Franklin
Dr. Samuel M. McDaniel	Dr. James M. Wolcott, Jr.
Dr. William L. Taliaferro	Dr. Robert J. Faulconer
Dr. George H. M. Rector	Dr. William S. Hotchkiss
Dr. R. Bryan Grinnan, Jr.	Dr. Howard I. Kruger
Northampton	
Northern Neck	
Northern Virginia	
Dr. Harold W. Miller	Dr. Fred Maphis, Jr.
Dr. James Holsinger	Dr. M. J. W. White
Dr. Dennis P. McCarty	Dr. E. B. Sherman
Dr. H. P. Maccubbin	Dr. George Murphy
Dr. J. P. Snead	Dr. C. L. Riley
Dr. Frank Tappan	Dr. Carroll Iden
Orange	
Dr. H. C. McCoy	Dr. J. G. Bruce, Jr.
Patrick-Henry	
Dr. Samuel W. Adams	Dr. L. Faudree
Dr. W. D. Lewis	Dr. H. C. Foster
Portsmouth	
Dr. T. Elmore Jones	Dr. J. R. St. George
Dr. R. M. Cox	Dr. K. W. Howard
Princess Anne	
Dr. James P. Charlton	
Dr. Ira L. Hancock	
Richmond Academy	
Dr. Robert V. Terrell	Dr. Stuart Ragland, Jr.
Dr. Edwin L. Kendig, Jr.	Dr. W. Linwood Ball
Dr. Thos. W. Murrell, Jr.	Dr. E. Randolph Trice
Dr. R. Campbell Manson	Dr. Owen Gwathmey
Dr. John M. Meredith	Dr. William Johns
Dr. Robert P. Trice	Dr. John Gill
Dr. H. Chesley Decker	Dr. J. M. Hutcheson, Jr.
Dr. Carrington Williams, Jr.	Dr. William H. Higgins, Jr.
Dr. B. Noland Carter, II	Dr. Emmett Mathews
Dr. Kenneth Cherry	Dr. R. G. McAllister
Dr. J. Edward Hill	Dr. Beverley Clary
Dr. Harry J. Warthen	Dr. David C. Forrest
Dr. Henry A. Bullock, Jr.	Dr. John F. Butterworth, III
Dr. Benj. W. Rawles, Jr.	Dr. Thomas P. Overton
Roanoke Academy	
Dr. David S. Garner	Dr. Houston L. Bell
Dr. George S. Hurt	
Dr. Gordon Carmichael	Dr. R. L. A. Keeley
Dr. William H. Kaufman	Dr. Louis P. Ripley
Dr. Harry B. Stone, Jr.	Dr. A. L. Wolfe
Dr. P. A. Wallenborn, Jr.	Dr. T. J. Humphries
Rockbridge	
Dr. W. W. Old, III	Dr. O. H. McClung, Jr.
Rockingham	
Russell	
Scott	
Southwestern Virginia	
Dr. W. W. Walton	Dr. C. W. Hickam
Dr. C. E. Stark	Dr. W. R. Chitwood
Dr. George B. Kegley	Dr. C. D. Moore, Jr.
Dr. J. Glenn Cox	Dr. M. G. Martin
Dr. R. D. Campbell	Dr. O. O. Smith
Dr. S. A. Tuck	Dr. E. L. Bagby
Dr. Harry M. Hayter	Dr. J. S. Shaffer
Dr. George R. Smith, Jr.	Dr. J. T. Showalter
	Dr. J. Marinus
Tazewell	
Dr. Rufus Brittain	Dr. James Peery
Tri-County	
Dr. T. A. Morgan	Dr. H. L. Gardner, Jr.
Dr. Hugh Warren, Sr.	Dr. Ivan Steel
Dr. Charles Rawls	Dr. William Eddy
Dr. George J. Carroll	Dr. L. J. Stetson
Williamsburg-James City	
Wise	
Dr. W. B. Barton	
Virginia O. L. & O.	
Dr. Benjamin Sheppard	

Woman's Auxiliary . . . .

President ..... Mrs. Walter A. Porter, Hillsville
President-Elect ..... Mrs. F. Clyde Bedsaul, Floyd
Vice-Presidents ..... Mrs. A. B. Gravatt, Jr., Kilmarnock
Mrs. M. M. Bray, Suffolk
Mrs. H. I. Kruger, Norfolk
Recording Secretary ..... Mrs. Robert B. Keeling, South Hill
Corresponding Secretary ..... Mrs. J. Glenn Cox, Hillsville
Treasurer ..... Mrs. James M. Moss, Alexandria
Publication Chairman ..... Mrs. Custis L. Coleman, Richmond
Directors ..... Mrs. Charles A. Easley, Jr., Danville
Mrs. John R. St. George, Portsmouth
Mrs. Lee S. Liggan, Irvington

A Message from the President

As I pause in the midst of my scramble to meet deadlines to write my last newsletter, I find myself with mixed emotions. It is hard to realize that this year is rapidly drawing to a close. Yet, on the other hand, it cannot have been too short since I have had so many pleasant experiences, met so many new people, and have loved being with former friends. From my first meeting to my last visit to the Auxiliaries in May, I have had a wonderful year. I want to thank you for the courtesies and cooperation shown me.

Convention is close at hand, and the Norfolk County Auxiliary, with Mrs. Joseph T. McFadden, President and Honorary Chairman, Mrs. Mallory S. Andrews, General Chairman, and Mrs. Charles E. Horton, Co-Chairman, are planning to be our host when we gather at Virginia Beach on October 9-12. I hope that much benefit will be gained from attending our meetings and meeting our National President, Mrs. William Mackersie, and our Southern President, Mrs. John M. Chenault. A highlight of the Convention will be two tours.

When the year 1959-60 is evaluated, I hope it can be found to be a strong link in the Auxiliary chain. I hope our aid to A.M.E.F., the Legislative field and Community Service has been of great value, and I am sure the Auxiliary members have received benefit from carrying out all our objectives. That each project has received adequate development for its continuity to be uninterrupted is my desire. And I trust the way will be paved for the organization of new Auxiliaries and that the health of each community is improved because each of us has met our responsibility in that field.

Please meet me at Virginia Beach in October.

VIRGINIA M. PORTER (Mrs. WalterA.)

PROGRAM
of the
THIRTY-EIGHTH ANNUAL CONVENTION

Virginia Beach, Virginia — October 9-12, 1960

Headquarters—Cavalier Hotel

A cordial invitation is extended to all members of the Woman's Auxiliary to The Medical Society of Virginia, their guests and the wives of physicians attending the convention to participate in all social functions and attend the general meeting of the Auxiliary.

Information and tickets for the tours and Annual Luncheon will be available at the registration desk. Luncheon reservations will close at 10:00 a.m. Tuesday.

Registration Hours

Sunday, October 9 ..... 4:00 p.m. to 8:00 p.m.

Monday, October 10 ..... 9:00 a.m. to 3:00 p.m.

Tuesday, October 11 ..... 9:00 a.m. to 10:30 a.m.

Monday, October 10

9:00 a.m.—Golf: Princess Anne Country Club

10:00 a.m.—Pre-Convention Board Meeting, Sun Parlor
Mrs. Walter A. Porter, President, presiding

9:00 a.m. to 11:30 a.m.—Coffee, Exhibit Room
All registered guests invited

11:45 a.m.—Tour of Naval Base and Oceana Jet Base
Mrs. Robert K. Maddock, Entertainment Chairman

Tuesday, October 11

8:00 a.m.—Past President's Breakfast
Mrs. Charles A. Easley, Jr., Chairman

9:00 a.m.—Formal Opening of the Thirty-Eighth Annual Convention of the Woman's Auxiliary to The Medical Society of Virginia, Sun Parlor, Cavalier Hotel
Mrs. Walter A. Porter, President, presiding

Invocation—Mrs. Hawes Campbell, Convention Chaplain

Pledge of Loyalty:
I pledge my loyalty to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals.

Address of Welcome—Mrs. Joseph T. McFadden, President of Norfolk County Auxiliary

Response—Mrs. Robert L. Norment, President of Arlington Auxiliary

Convention Announcements—Mrs. Mallory S. Andrews, General Chairman

Roll Call of Auxiliaries—Mrs. Robert Keeling, Recording Secretary

Minutes of the Thirty-Seventh Annual Convention—Mrs. Keeling

Minutes of the Post-Convention Board Meeting

Presentation of Honored Guests

Mrs. William Mackersie, President of the Woman's Auxiliary to the American Medical Association

Mrs. John M. Chenault, President of the Woman's Auxiliary to the Southern Medical Association

Presentation of the President of The Medical Society of Virginia, Guy W. Horsley, M.D.

Greetings—Dr. Horsley

In Memoriam—Mrs. H. H. Braxton

Report of the Credentials Chairman—Mrs. C. M. McCoy

Report of Treasurer—Mrs. James M. Moss

Unfinished Business

New Business

Recommendations from the Board

Remarks by the President and Recognition of State Officers and Committee Chairmen—Mrs. Walter A. Porter

Report of Delegates to the Woman's Auxiliary to the American Medical Association—Mrs. F. Clyde Bedsaul, Chairman

Report of Nominating Committee—Mrs. E. Lynwood Bagby

Election of Officers

Guest Speakers—

Mrs. William Mackersie, President of the Woman's Auxiliary to the American Medical Association

Mrs. John M. Chenault, President of the Woman's Auxiliary to the Southern Medical Association

Courtesy Resolutions—Mrs. Wyndham B. Blanton, Jr.

Adjournment

12:00 Noon—Inaugural Luncheon, Mrs. Walter A. Porter presiding

Invocation—Mrs. Hawes Campbell

Presentation of Honored Guests

Luncheon

Installation of Officers—Mrs. William Mackersie

Presentation of the President's Pin—Mrs. Walter A. Porter

Presentation of the Past President's Pin—Mrs. Charles A. Easley, Jr.

Inaugural Remarks—Mrs. F. Clyde Bedsaul

Convention Acknowledgments—Mrs. Mallory S. Andrews

1:00 p.m.—Post Convention Board Meeting, Mrs. F. Clyde Bedsaul, President, presiding

All new State Officers, Directors, Committee Chairmen, County Presidents and President-Elects are expected to attend.

2:00 p.m.—Tour of outstanding Virginia Beach homes

Wednesday, October 12

10:30 a.m.—Morning Coffee

Fall Hat Fashions

Committee on Arrangements

Honorary Chairman — Mrs. Joseph T. McFadden
General Chairman — Mrs. Mallory S. Andrews
Co-Chairman — Mrs. Charles E. Horton
Registration — Mrs. C. M. McCoy
Co-Chairman — Mrs. George A. Duncan
Secretary-Treasurer — Mrs. H. W. Rogers
Hospitality — Mrs. John St. George
Co-Chairman — Mrs. Charles E. Davis
Printing — Mrs. Richard Reed
Co-Chairman — Mrs. H. C. Merrick
Press and Publicity — Mrs. Henry Boone
Co-Chairman — Mrs. Walter Sawyer
Entertainment — Mrs. Robert K. Maddock
Decoration — Mrs. C. C. Cooley
Co-Chairman — Mrs. Milton Bland
Luncheon — Mrs. Henry W. Wood
Golf — Mrs. Charles J. Devine
Co-Chairman — Mrs. Patrick C. Devine
Coffee — Mrs. K. K. Wallace
Co-Chairman — Mrs. R. Bryan Grinnan, Jr.
Invitations — Mrs. Richard M. Reynolds
Pages — Mrs. Daniel N. Anderson
Co-Chairman — Mrs. Fred Williams
Exhibits — Mrs. John Foster
Co-Chairman — Mrs. Nelson Payne

Editorial . . .

Can We Convert Our Tuberculosis Sanatoria?

THE EFFECTIVENESS of the anti-tuberculosis drugs has lessened the fear of the disease. This has, unfortunately, resulted in some complacency, and loss of interest in finishing a task that was formerly considered extremely urgent!

According to the figures of the U. S. Public Health Service for the years 1955 to 1957 (most recent complete figures available), Virginia's composite rank, based on deaths and number of cases for the three-year period, placed our State 12th in the nation. Virginia is one of twelve states with the worst tuberculosis problem.

A short time ago, an itinerant Puerto Rican laborer sustained a pulmonary hemorrhage practically on the doorstep of a local tuberculosis office. The Puerto Rican tuberculosis rate is twice that of the United States, and thousands of Puerto Ricans have entered the U. S.

A woman, a chronic alcoholic with a tuberculous cavity and a positive sputum, recently fled the State to avoid compulsory quarantine. She didn't go far, just to Washington, D. C. Others come into the State for the same reason, and it takes time and effort to ferret them out.

A most disturbing situation is that of the tuberculous individual who is first identified on the death certificate. The average percentage of such deaths for the years 1957 to 1959 is forty-two percent. That is, nearly half of the deaths attributed to tuberculosis were unknown to the Health Department prior to the presentation of the death certificate with the diagnosis of tuberculosis. Certain counties in Virginia have reported a low case rate but have a high death rate from tuberculosis. Are these cases simply unreported, or are they unrecognized prior to the final illness? When any person dies of tuberculosis, it is an indication that for some reason his treatment has not been effective. When patients are untreated, or inadequately treated, the day when the Tuberculosis Sanatoria can be converted to other uses is correspondingly delayed.

It is true that early minimal cases of tuberculosis, if treated promptly, properly, and without interruption for eighteen months or more, can be arrested. A few of such cases may be treated adequately at home. Those patients with positive sputum, cavitation and advanced disease can best be treated in the Sanatoria where there are experts in tuberculosis treatment and the best in special x-ray and laboratory equipment is available.

The Virginia State Health Department reports the following figures:

Total cases on register	12,498
Estimated number of cases not active (formerly on case register)	10,000
Estimated unknown cases	10,000
Total cases needing supervision, known or estimated	32,498

The State Health Department operates regional clinics to assist local physicians in the diagnosis and control of tuberculosis. We have the drugs, the sanatoria, and the organization of the State Health Department. We must insist on the treatment and control of patients with pulmonary tuberculosis. Of the estimated 32,498 patients needing supervision or treatment, only 47 have been quarantined by court order. There must be many more who should be out of circulation and who are a danger to their families and to all who come in contact with them.

It would appear that if all the patients with active disease could be admitted to the Sanatoria, there would be few empty beds and we would be nearer complete control of tuberculosis in Virginia.

Not until all these cases are located and adequately treated, can we consider converting our Sanatoria to other purposes.

—Eternal Vigilance is the Price of Tuberculosis Control.

E. C. Drash, M.D.

The Confederate Medical Exhibit

IN THE April, 1959, issue of the Virginia Medical Monthly an item appeared concerning the Confederate Medical Exhibit, which will be held at the Richmond Academy of Medicine during the Centennial observation of 1861-65. A request was made that the Committee arranging this display be permitted to borrow Civil War medical items from members of The Medical Society of Virginia, who would be willing to loan them for the duration of the exhibit. The response was something less than sensational—in fact there was no response at all and there was nothing to indicate that the request had been made.

In view of this, a second, more limited request is made that daguerreotypes, photographs, or oil portraits of Virginia physicians who served in the Confederate Army be loaned to the exhibit. If the owner does not wish to part with such an item for the entire duration of the Centennial, it may be possible to display it for a shorter period and perhaps rotate the exhibit on a two-year basis. Transportation and insurance, of course, will be provided.

Some Virginians are disturbed over the danger of the Civil War Centennial getting out of hand and becoming perverted to purely commercial purposes. This is a very real hazard, which, I am sure, has occurred to most of us but the only way we can prevent such a travesty is for each of us to take the initiative and to see that the Commemoration of this tragic era is not permitted to sink to the level of the market place. This, in itself, would justify the trouble that the members of the Committee are going to in preparing the Centennial display.

Every effort is being made to assemble a representative exhibit, for it is anticipated that many visitors will come to Virginia during this period and an outstanding medical display will reflect credit on the Commonwealth and its physicians. It is hoped that the members of The Medical Society of Virginia will do everything in their power to make this exhibit the success it deserves to be.

Harry J. Warthen, M.D.

News Notes....

The Annual Meeting

This being a year for predictions, political and otherwise, it seems only fair that a prediction be permitted concerning the 1960 Annual Meeting which will be held at Virginia Beach from October 9-12. It is, therefore, confidently predicted that the meeting will be different, exciting, and a "must" from the scientific point of view.

Certainly all the ingredients for a different and exciting meeting are present—the magic of "The Beach", headquarters at the Cavalier, the luxury of some of the finest oceanside motels in the East and the bright aluminum domed Convention Center. Add sparkling entertainment, sports events and outstanding tours planned by the local committee on arrangements, alumni groups and the Woman's Auxiliary, and you have a genuine "new look" for the 113th Annual Meeting.

The scientific program is in itself a tribute to the time and effort spent by committee members in obtaining speakers and papers unrivaled for general interest and appeal. Eleven guest speakers, outstanding in their respective fields, will add lustre to sessions already bright with promise.

All scientific sessions will be held at the Convention Center. An innovation will be the utilization of closed circuit TV to make it possible for members to enjoy the sessions in the relaxed atmosphere of two smaller rooms at the Center.

The main meeting room is located just a step away from the scientific and technical exhibits, which will fill the circular area under the dome. The exhibits will be arranged with an eye toward the maximum in convenience. Scientific exhibits will be in the very center with the technical displays around them. The tremendous amount of time and money that go into the development of these exhibits is perhaps not realized by many physicians. It would be difficult indeed to imagine a really successful meeting without them and it behooves each member to do himself and the Society a real service by spending just as much time with the exhibits and exhibitors as is humanly possible.

Although the Convention Center is not within walking distance of some of the hotels and motels, a shuttle-bus, operated by the Virginia Beach Convention Bureau, will be running each day. Unlimited parking is available at the Center for those preferring to drive.

Something different in the way of cocktail parties is planned for Monday evening. The party will be held at poolside in the Cavalier and members and guests will be entertained by aquatic stars in a number of outstanding acts.

The annual banquet will immediately follow the cocktail party and will be held in the Ballroom of the Cavalier. This is always one of the social highlights of the meeting.

Alumni cocktail parties and banquets will be held on Tuesday night, and these will be followed by dancing at the Cavalier to the music of an outstanding band. A top floor show is also on tap for that occasion.

Something new has been added to the Monday afternoon sports programs. The Society championship will, of course, be at stake during the golf tournament at the Princess Anne Country Club, but a special event for skeet shooters is being arranged for the first time and will be held at the Princess Anne Gun Club.

Even in the midst of scientific sessions, golf tournaments, skeet shoots, cocktail parties and banquets, business must go on as usual. The House of Delegates will meet twice—at the Cavalier on Sunday evening and at the Center on Tuesday afternoon. Members are reminded that the Reference Committee will meet on Monday afternoon at 2:30 and all resolutions introduced at the first session of the House will be considered at that time. Members are invited to attend the meeting and make their views known concerning any of the matters under consideration.

Attention must be called to the fascinating program arranged for the wives by the Woman's Auxiliary. The local committee responsible for Auxiliary arrangements has made absolutely certain that there will be "never a dull moment". Rumor has it that many physicians are regarding some of the Auxiliary tours with considerable envy.

All in all, it looks like a great meeting—one which will truly be different, exciting—and above all—one you simply can't afford to miss.

New Members.

Since the list published in the August issue of

the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Christian Creteur, M.D., Portsmouth
William R. Garcia, M.D., Covington
Sidney Paul Helfer, M.D., Norfolk
Harry H. Howren, Jr., M.D., Richmond
Guenter J. Lederstedt, M.D., South Boston
Gordon E. Madge, M.D., Richmond
Julius L. Schwartz, M.D., Petersburg
W. Donald Wilfong, M.D., Radford
Henry M. Ware, M.D., Newport News

Cancer Trends and Advances

Beginning with the October issue, the Professional Education Committee of the American Cancer Society, Virginia Division, will assume responsibility for a regular section in the Virginia Medical Monthly devoted to trends and advances in cancer control. To some extent, this will be a revival of a section previously included in the Monthly and edited by Dr. George Cooper, Jr. of the University of Virginia Hospital. The new series, however, will be concerned more with trends in cancer control than in individual case studies.

The articles will be prepared by staff members of the medical schools in Virginia and by physicians in practice throughout the State. We also hope to include reprints of notable reports from out of state sources. Information will be presented about trends in exfoliative cytology, chemotherapy, diagnostic and treatment methods, epidemiological findings, research developments, radiation therapy, surgery, professional education, hormonal therapy, and management of terminal cases.

We invite the readers of the Monthly to give us an indication of the type of articles they would like included. Our readers are also invited to make contributions to the page. Correspondence should be directed to the Professional Education Committee, American Cancer Society, Virginia Division, 303 West Franklin Street, Richmond 20, Virginia.

The American Cancer Society wishes to express its appreciation to Dr. Harry J. Warthen, Chairman of the Editorial Board and Editor of the Virginia Medical Monthly, for providing us the opportunity and freedom to develop the new series. We hope to present material that will make a significant contribution to our efforts in cancer control.

Robert L. Payne, Jr., M.D., *Chairman*
Professional Education Committee
American Cancer Society, Va. Division

State Board of Medical Examiners.

Dr. John C. Watson, Alexandria, has been named as president of the Board, succeeding Dr. Russell M. Cox. Dr. Charles M. Irvin, Roanoke, has been appointed to represent his district on the Board, succeeding Dr. K. D. Graves, also of Roanoke. Dr. Cox will serve as secretary-treasurer.

Dr. J. C. Coulter,

Who practiced in Charlottesville from 1913 to 1952, has returned and reopened his office at 501 West Main Street. He left Charlottesville to become assistant physician for the Forsythe County (North Carolina) Tuberculosis Sanatorium, following which he practiced for three years in Mayfield, Kentucky.

Staff Officers.

Medical staff officers of the Obici Memorial Hospital, Suffolk, are: Dr. M. M. Bray, president; Dr. J. E. Rawls, vice-president; Dr. M. A. Michael, secretary-treasurer and chief of surgery; Dr. W. H. Rogers, chief of obstetrics and gynecology; Dr. George J. Carroll, pathologist; Dr. F. L. Overton, Jr., chief of medicine; Dr. E. C. Joyner, chief of general practice; and Dr. L. J. Stetson, radiologist.

History of Southern Medical Association.

A complete history of the 54-year old Southern Medical Association came off the press on August 15th. Its author is C. P. Loranz, for many years business manager and secretary-treasurer, and now advisor and professional relations counselor.

The history details the associations's growth from its beginning in 1906, and includes statistical data on officers, places of meeting, research awards and membership figures, in addition to numerous photographs.

Virginia Heart Association.

Dr. L. Floyd Hobbs, Alexandria, has been installed as president of this Association for the year 1960-61. Dr. Julian R. Beckwith, Charlottesville, has been elected vice-president.

American College of Chest Physicians.

At the annual meeting of the College, held at Miami Beach in June, Dr. H. Jay Flipse, Miami, was elected president.

Dr. Levi Old, Jr., Norfolk, and Dr. Yale Zim-

berg, Richmond, were awarded Fellowship certificates at the Convocation.

Roanoke Academy of Medicine.

At the June meeting of the Academy, the following officers were elected for the next term: President, Dr. J. Lawson Cabaniss; vice-president, Dr. Wade H. Saunders; and secretary-treasurer, Dr. Walter Johnson. Drs. Samuel Driver, Lee Shaffer, and Frank Angell were elected to the Executive Council, and Drs. William Moir and Robert S. Hutcheson to the Judicial and Ethics Committee.

Dr. W. W. Waddell, Jr.,

Resigned as chairman of the Department of Pediatrics of the University of Virginia on July 1st, in accordance with University policy which requires retirement from administrative positions at the age of sixty-five. He will continue his pediatric practice and teaching duties as Professor of Pediatrics.

Dr. McLemore Birdsong, Professor of Pediatrics, has been named Acting Chairman.

Dr. Philip M. Sprinkle,

Recently of Martinsville, is now at Watts Hospital, Durham, North Carolina, for a year of study in general surgery. At the completion of this work, he will enter the University of Virginia Hospital for three years of training in ear, nose and throat surgery. Dr. Sprinkle will then return to Martinsville.

Seminar on Kidney Disease.

The Southeastern Region of the College of American Pathologists and the Virginia Society of Pathologists will hold a joint meeting at the John Marshall Hotel, Richmond, on November 25 and 26, on kidney disease. The speakers will include Drs. Stanley M. Kurtz, Peter P. Ladewig, Henry D. McIntosh, George Margolis, Conrad L. Pirani, David E. Smith, and Max Wachstein. The slide seminar will be conducted by Dr. Frank C. Coleman, president of the College of American Pathologists.

The slide sets for this seminar may be purchased at a cost of $15.00 per set by writing to: Dr. G. T. Mann, Professor of Forensic Pathology, P. O. Box 41, Medical College of Virginia, Richmond 19, Virginia.

Society for Clinical and Experimental Hypnosis.

This Society will meet at the Willard Hotel, Washington, D. C., October 6-7. Workshops in Clinical Hypnosis will be conducted October 5th.

For information write the Institute for Research in Hypnosis, 33 East 65th Street, New York 21.

Health Education Conference.

The 1961 Eastern States Health Education Conference on The New York Academy of Medicine will be held April 27 and 28, 1961, at The New York Academy of Medicine, 2 East 103rd Street, New York City.

Urology Award.

The American Urological Association offers an annual award of $1000 (first prize of $500, second prize $300, and third prize $200) for essays on the result of some clinical or laboratory research in urology. Competition is limited to urologists who have been graduated not more than ten years, and to hospital internes and residents doing research work in urology.

For full particulars, write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1960.

The Southeastern Allergy Association

Will hold its annual meeting October 21-22, at the Atlanta Biltmore Hotel, Atlanta, Georgia. The program is under the supervision of Dr. Susan Dees, Duke Medical College, Durham, North Carolina. Everyone interested in allergy is welcomed.

Obituaries . . . .

Dr. Richard Nevitte Sutton,

Prominent physician of Arlington, died July 21st at his summer home in Jackson, New Hampshire. He was seventy-three years of age and a graduate of Georgetown University in 1910. Dr. Sutton had practiced in Arlington since his graduation until his retirement in January. He was first chief of staff and later chairman of the board of directors at Arlington Hospital and was associated with the outpatient department of Georgetown Hospital. Dr. Sutton was the first president of the board of directors of the Clarendon Trust Company and of the Arlington Rotary Club, and a past president of the Washington Golf and Country Club. He was a past president of the Arlington County Medical Society and had been a member of The Medical Society of Virginia since 1915.

His wife and two daughters survive him.

Dr. James Montrose Spencer,

Roanoke, died May 6th, at the age of seventy. He had been in ill health for many years. Dr. Spencer was a graduate of the Medical College of Virginia in 1916. He had been a member of The Medical Society of Virginia since 1921.

Dr. William Nelson Eddy,

Prominent physician of Suffolk, died July 16th. He had been in ill-health for the past several months and had been the object of an all-out search when he was reported missing the morning of the 16th. His car was located by a searching Civil Air Patrol plane. The car had been driven partly off the road and Dr. Eddy was found slumped over the wheel, death being due to natural causes.

Dr. Eddy was a native of New York and graduated from the Syracuse University College of Medicine in 1943. He was on active duty with the U. S. Army for almost three years and opened his office for general practice in Suffolk in 1947. Dr. Eddy had served as chief of staff of Obici Memorial Hospital and was a member of the internal medicine staff. He was first vice-president of the Suffolk-Nansemond Tuberculosis Association. Dr. Eddy had been a member of The Medical Society of Virginia for eleven years.

His wife and two daughters survive him.

Dr. Sprinkle.

Be it resolved that the members of the Smyth County Medical Society express their sorrow at the death of Dr. Willis M. Sprinkle on January 1, 1960, who devoted most of his life to the people of Smyth County.

Born 61 years ago he attended Hampden-Sydney College and the University of Cincinnati Medical College in 1927. He then practiced in Waynesboro, North Carolina, for two years and then returned to Marion. He was a member of the Royal Oak Presbyterian Church.

He was always interested in the care, treatment, and prevention of children's diseases. After post-graduate study in 1951 he continued on in Marion limiting his practice largely to the field of pediatrics.

Dr. Sprinkle maintained his membership in the Smyth County Medical Society. He was always held in the highest esteem by his colleagues not only for his professional ability but also for his personal characteristics. He was honest and forthright in his opinions, well informed professionally, and he had a wide variety of interests. His chief form of relaxation was fishing.

Be it resolved that with the untimely death of Dr. Sprinkle the medical profession has lost a sincere, consecrated member and loyal friend.

Be it further resolved that the Smyth County Medical Society send to the bereaved widow a copy of this Resolution and that additional copies be mailed to the Virginia State Medical Society, the Southwest Medical Society, and to the Smyth County News.

Joseph R. Blalock, M.D.
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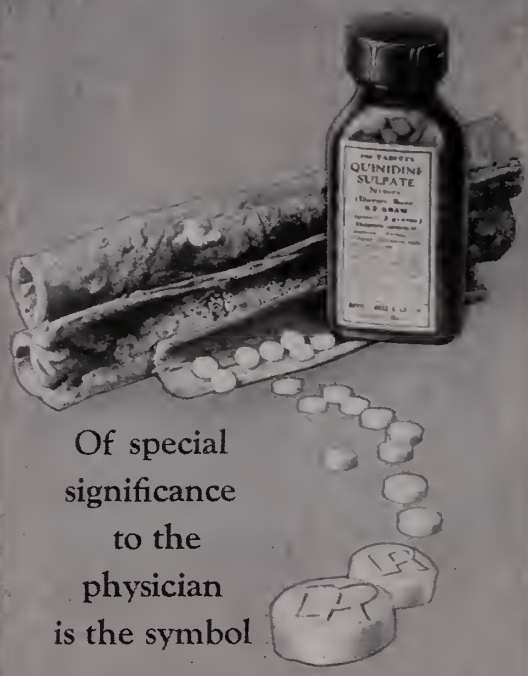

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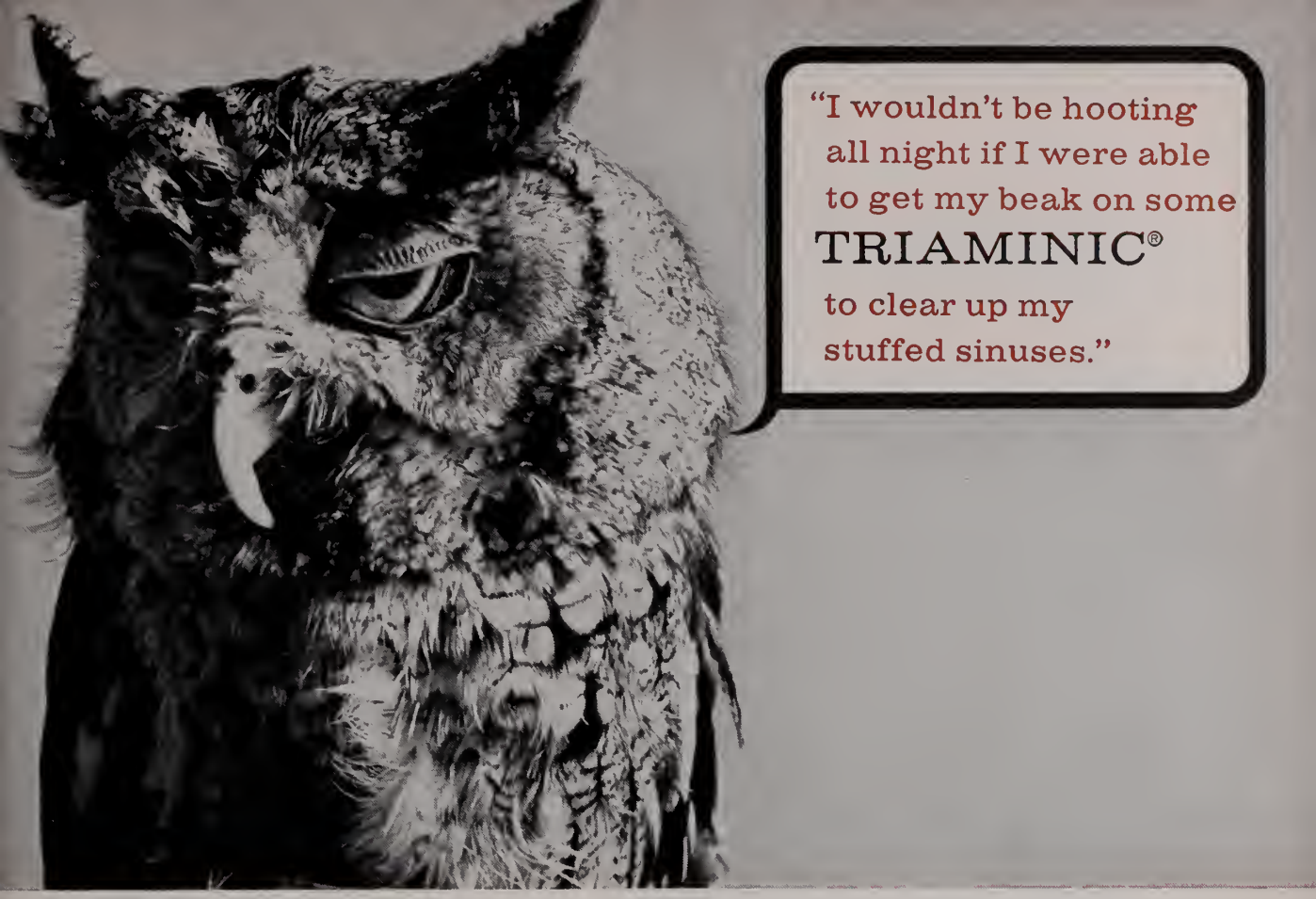

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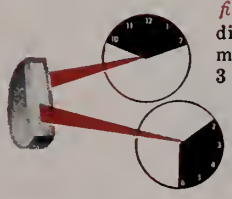

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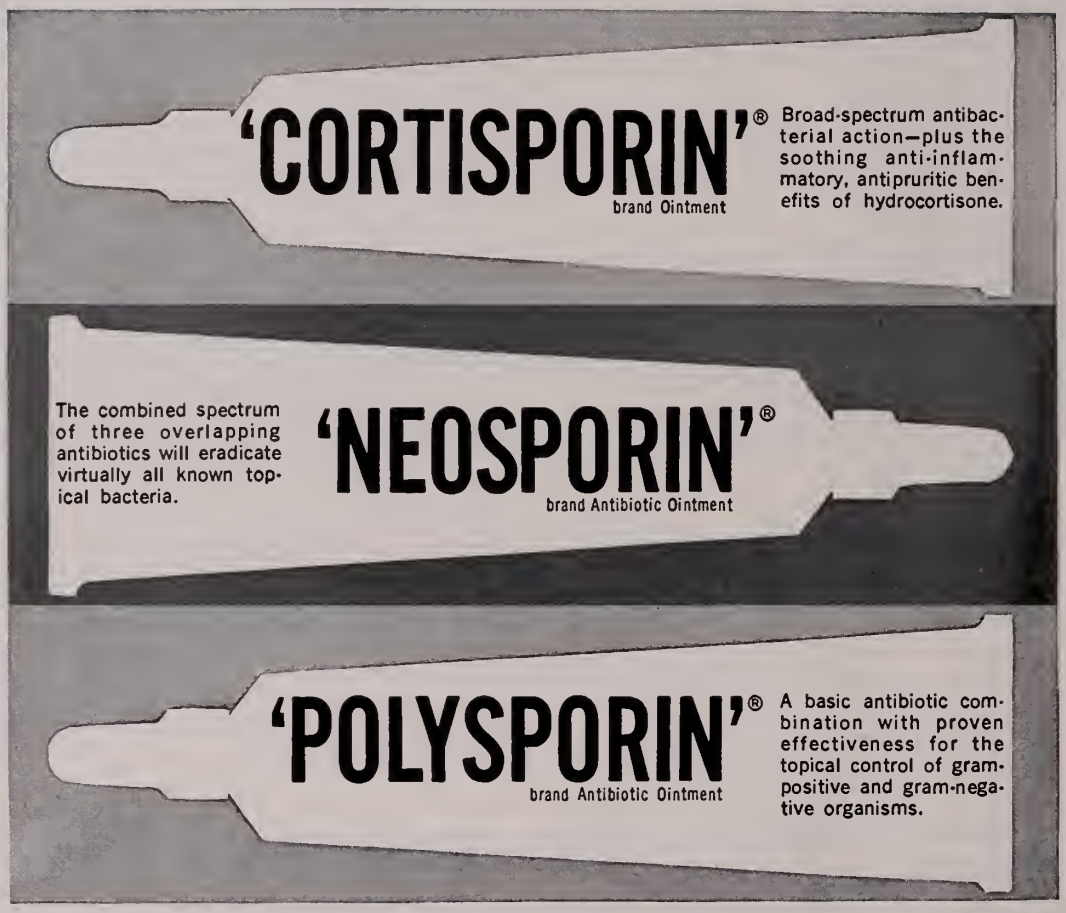

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Swartz, H., "Clinical Evaluation of a New Drug (Algic) in the Symptomatic Therapy of Perennial Allergic Coryza," Current Therapeutic Research, 2 : 1960.

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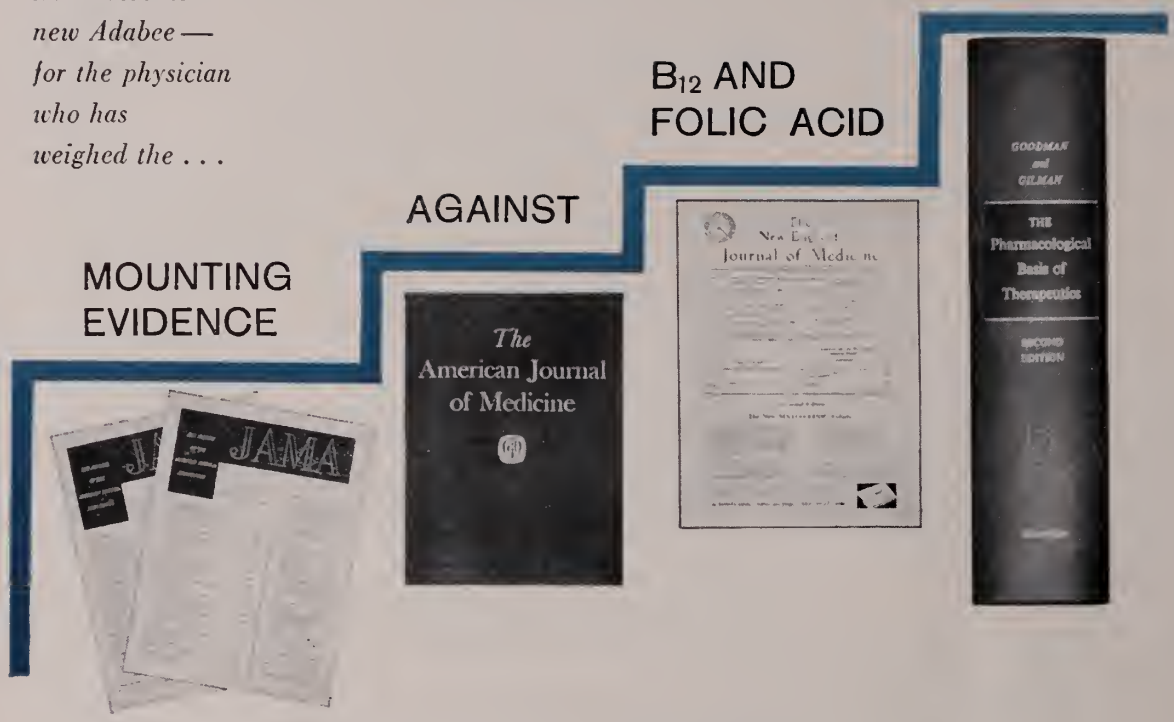

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references: 1. Wintrobe, M. M., *Clinical Hematology*, 3rd ed., Phila., Lea & Febiger, 1952, p. 398. 2. Goodman, L. S. and Gilman, A., *The Pharmacological Basis of Therapeutics*, 2nd. ed., New York, Macmillan, 1955, p. 1709. 3. New Eng. J.M., Vol. 259, No. 25, Dec. 18, 1958, p. 1231. 4. Frohlich, E. D., New Eng. J.M., 259:1221, 1958. 5. J.A.M.A., 169:41, 1959. 6. J.A.M.A., 173:240, 1960. 7. Goldsmith, G. A., American J. of M., 25:680, 1958. 8. Darby, W. J., American J. of M., 25:726, 1958.

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Vitamin D	1,000 USP units
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Riboflavin (B_2)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Nicotinamide (niacinamide)	50 mg.
Calcium pantothenate	10 mg.
Ascorbic acid (vitamin C)	250 mg.

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Iron	15.0 mg.	Zinc	1.5 mg.
Iodine	0.15 mg.	Potassium	5.0 mg.
Copper	1.0 mg.	Calcium	103.0 mg.
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Magnesium	6.0 mg.		

indications: As dietary supplements for the deficiency states that accompany pregnancy and lactation, surgery, burns, trauma, alcohol ingestion, hyperthyroidism, infections, cardiac disease, polyuria, anorexia, cirrhosis, arthritis, colitis, diabetes mellitus, and degenerative diseases. Also in restricted diets, particularly peptic ulcer, in geriatrics, and in concurrent administration with diuretics and antibiotics.

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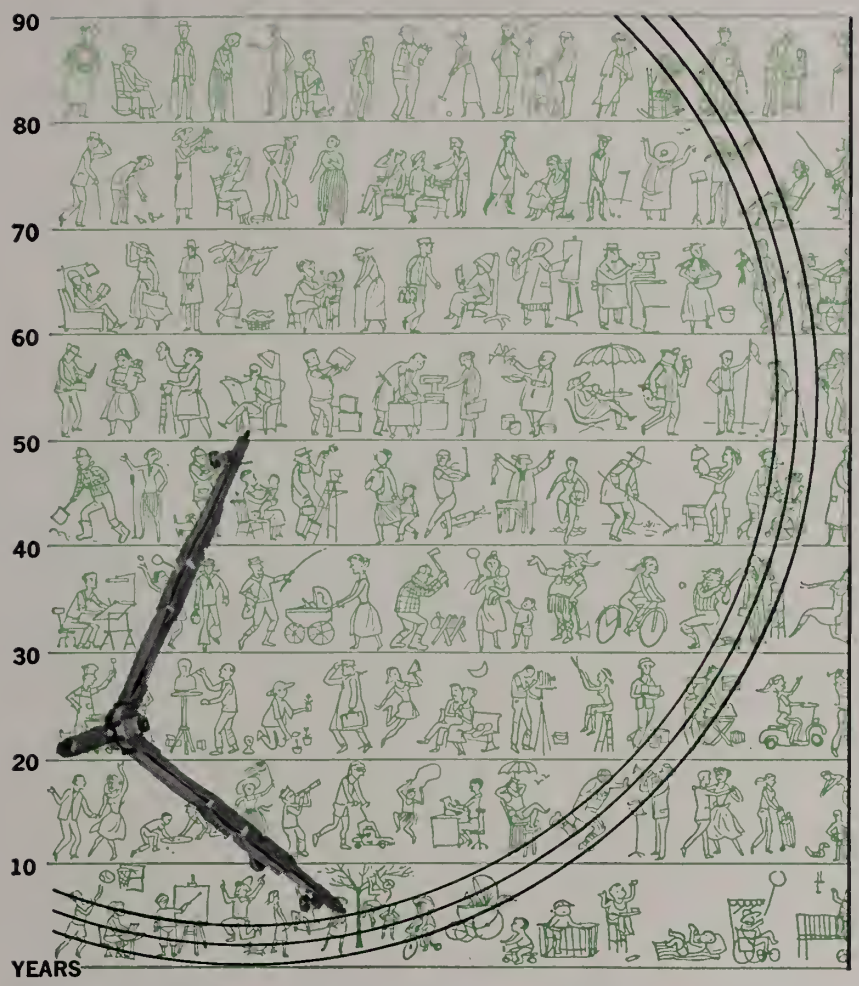

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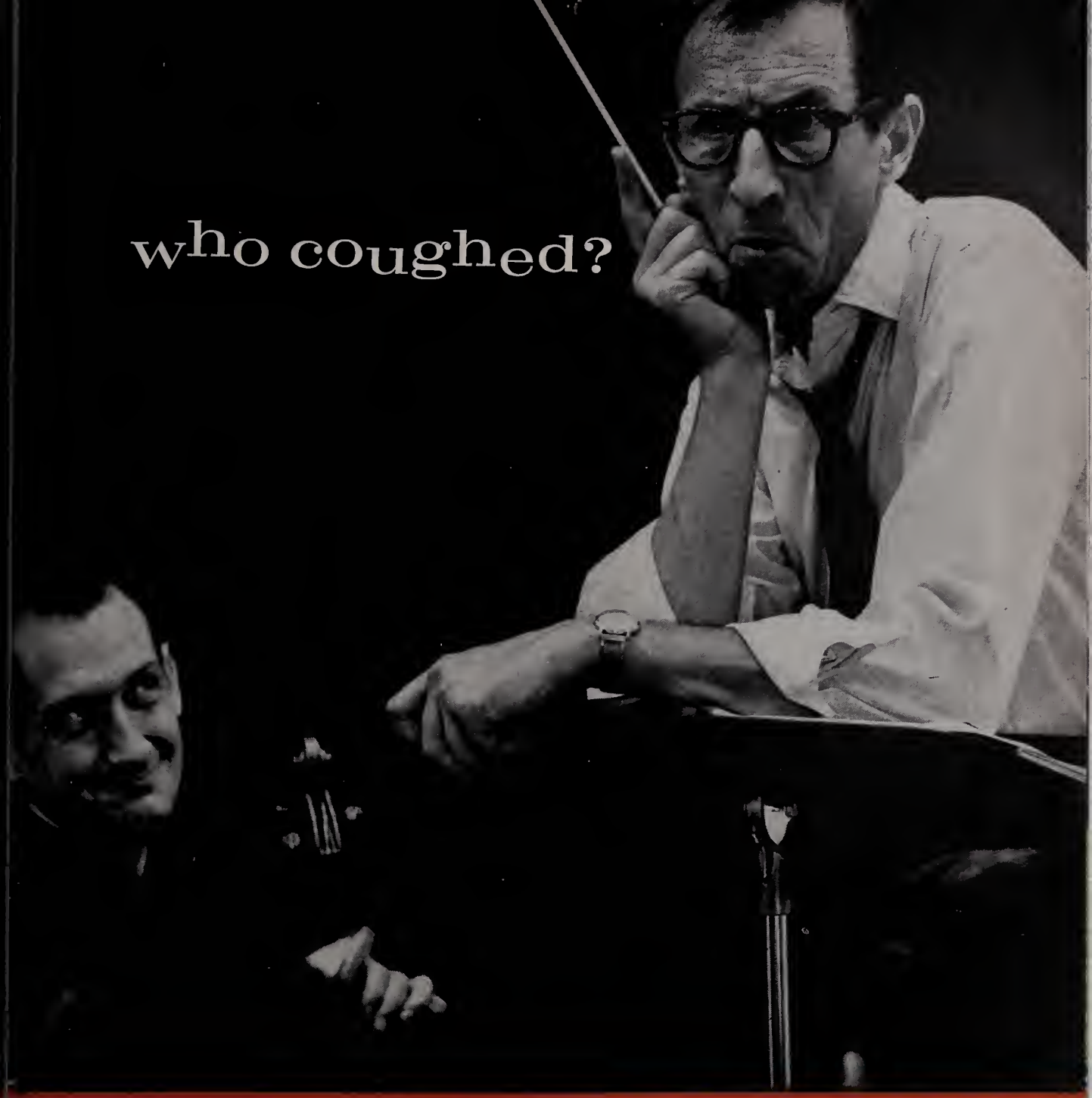

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"HEADS UP"
in spite of torticollis.

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1. Ganz, S. E.: *J. Indiana* . A
52:1134, July, 1959. 2. Kearney, D
Current Therap. Res. 2:127, p
1960. 3. Lichtman, A. L.: *Ke*
Acad. Gen. Pract. J. 4:28, Oct 196

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	Excellent	Good	Fair	Poor	Total
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Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
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Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

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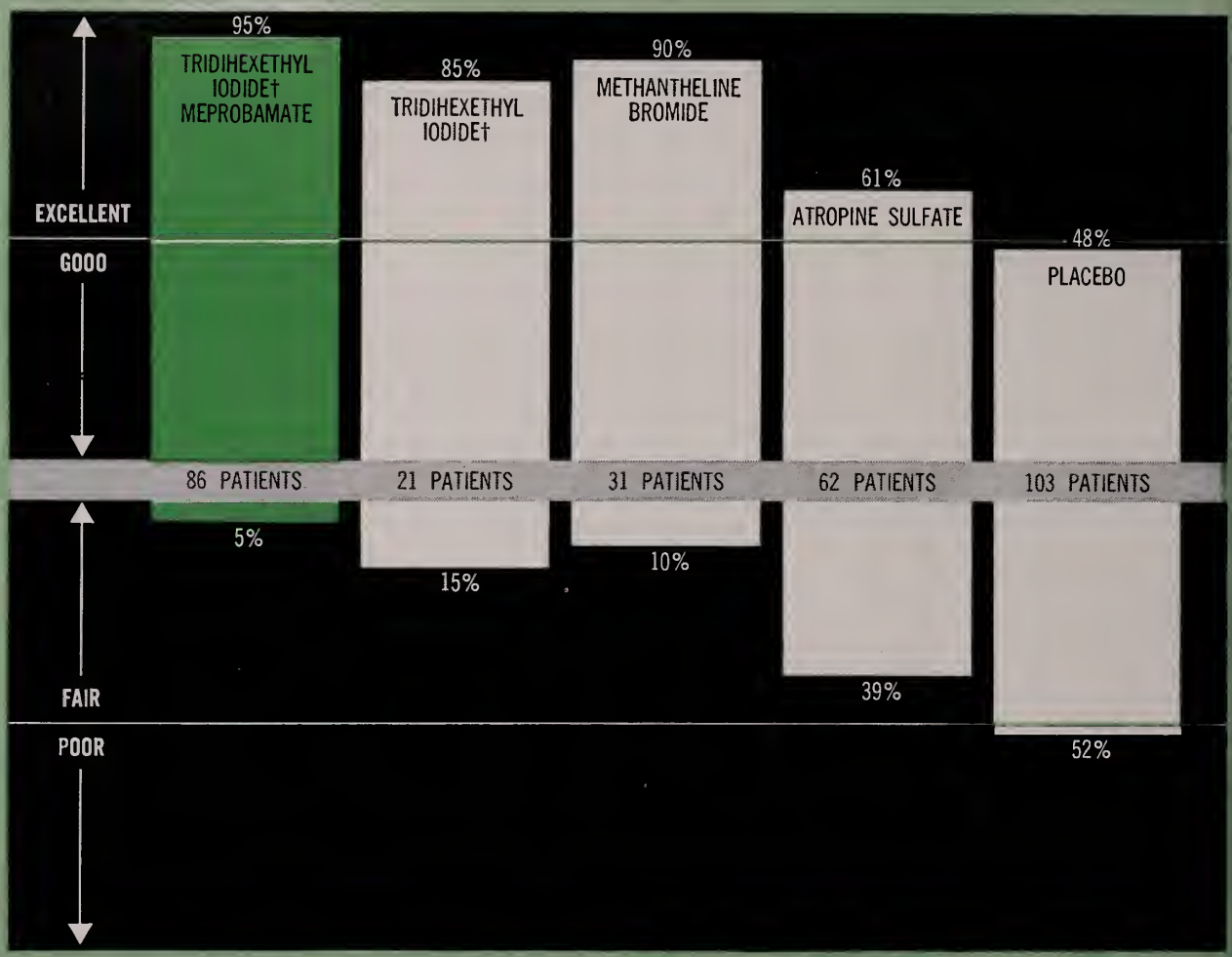
clinically proven efficacy.

in relieving tension . . . curbing hypermotility and excessive secretion in G. I. disorders



PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

Meprobamate—widely accepted tranquilizer and

PATHILON tridihexethyl chloride—anticholinergic noted for its effect on motility and gastrointestinal secretion with few unwanted side effects.

Contraindications: glaucoma, pyloric obstruction, and obstruction of the urinary bladder neck.

Two available dosage strengths permit adjusting therapy to the G.I. disorder and degree of associated tension.

Where a minimal meprobamate effect is preferred . . .
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Pathibamate® 400 200

meprobamate with PATHILON® tridihexethyl chloride Lederle

clinically proven safety

The efficacy of **PATHIBAMATE** has been confirmed clinically in **duodenal ulcer, gastric ulcer, intestinal colic, spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis** with gastrointestinal symptoms, and **gastric hypermotility.**

Pictured are the results obtained with the PATHILON (tridihexethyl iodide)–meprobamate combination† in a double-blind study of 303 ulcer patients, extending over a period of 36 months.* They clearly demonstrate the efficacy of **PATHIBAMATE** in controlling the symptoms.

SIDE EFFECTS	TRIDIHEXETHYL IODIDE† MEPROBAMATE	TRIDIHEXETHYL IODIDE†	METHANTHELINE BROMIDE	ATROPINE SULFATE	PLACEBO
DRY MOUTH	1%	5%	72%	46%	5%
STOMATITIS	1%	0%	28%	14%	0%
VISUAL DISTURBANCES	0%	0%	50%	34%	1%
URINARY RETENTION	0%	0%	18%	11%	1%
DROWSINESS	20%	0%	0%	0%	0%
COMPLICATIONS OR SURGERY					
HEMORRHAGE	0%	9%	3%	9%	10%
PERFORATION	0%	0%	0%	6%	0%
OPERATION	0%	5%	5%	14%	2%
RECURRENCES					
NONE	28%	23%	25%	17%	26%
FEWER AND MILDER	67%	62%	52%	37%	24%
SAME OR MORE	5%	15%	23%	46%	50%

*Atwater, J. S., and Carson, J. M.: Therapeutic Principles in Management of Peptic Ulcer. Am. J. Digest. Dis. 4:1055 (Dec.) 1959.

†PATHILON is now supplied as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could distort the results of certain thyroid function tests.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

control the tension — treat the trauma

for more normal living in angina pectoris

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Brand of Pentaerythritol Tetranitrate, 30 mg.

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with 50 mg. Secobarbital

Reduces incidence and Severity of attacks

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One continuous release capsule before breakfast and one before the evening meal provides 24-hour prophylactic effect.

Available in bottles of 60 and 250 capsules.

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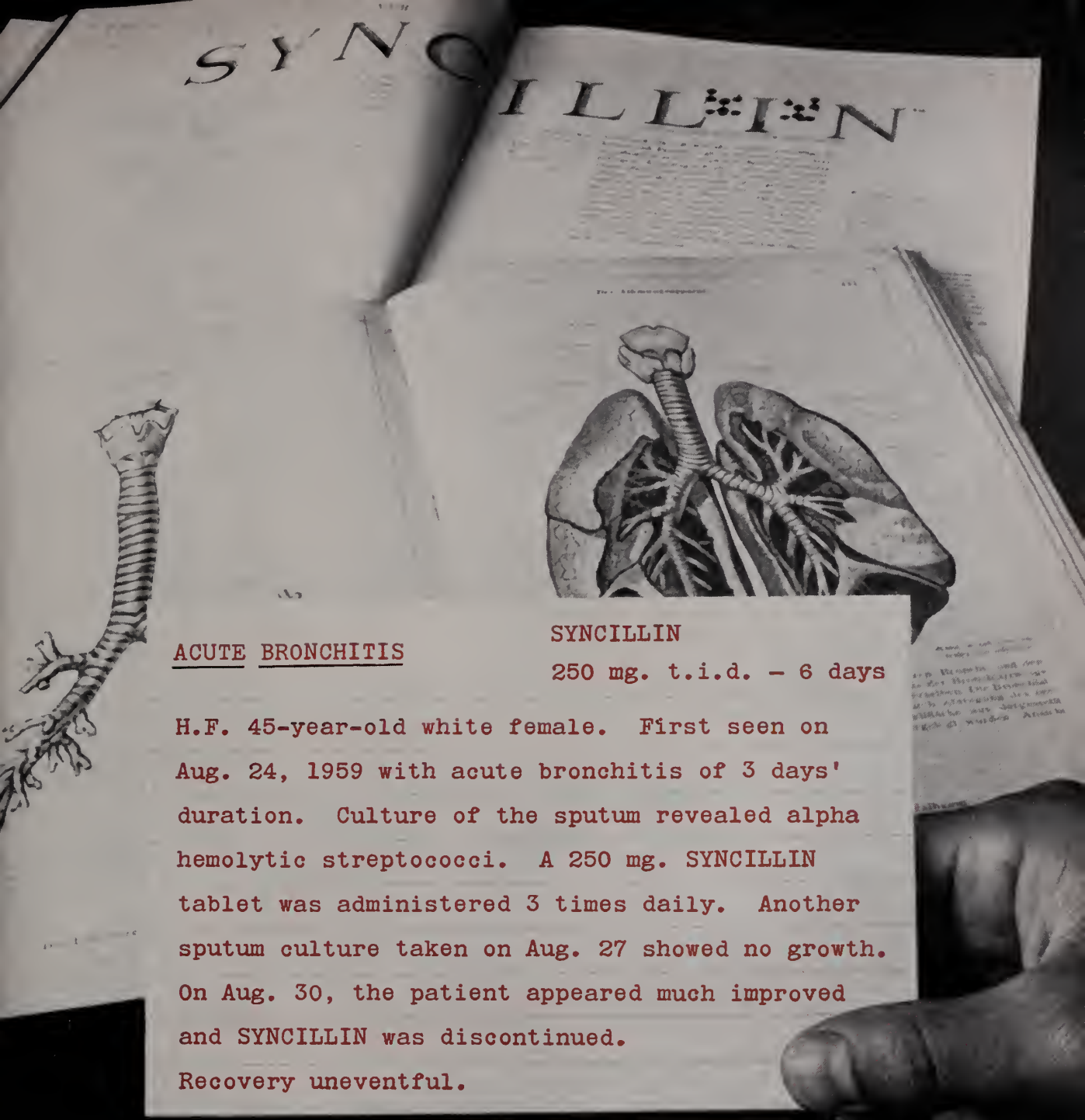

Actual case summary from the files of Bristol Laboratories' Medical Department

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(Potassium Penicillin-152)

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:

Syncillin Tablets – 250 mg. (400,000 units)... Syncillin Tablets – 125 mg. (200,000 units)
Syncillin for Oral Solution – 60 ml. bottles – when reconstituted, 125 mg. (200,000 units) per 5 ml.
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Complete information on indications, dosage and precautions is included in the circular accompanying each package.

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FOR SIMULTANEOUS IMMUNIZATION AGAINST 4 DISEASES:

Poliomyelitis-Diphtheria-Pertussis-Tetanus

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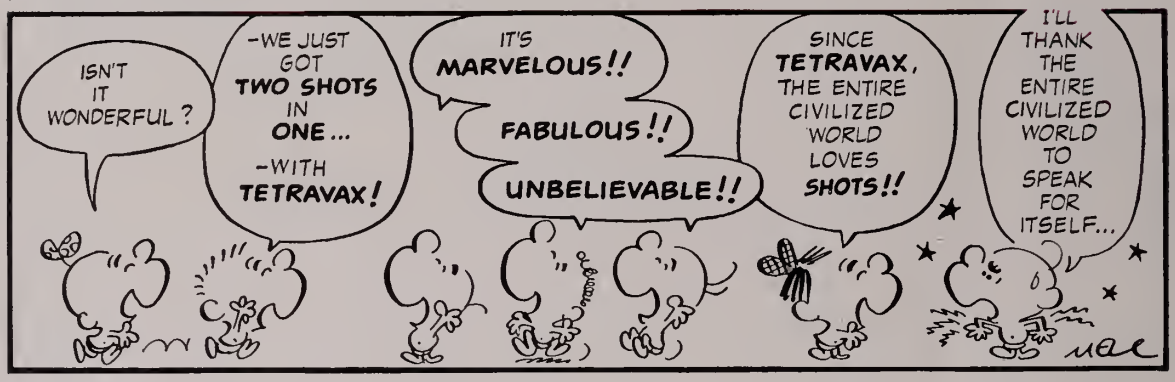

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DIPHTHERIA AND TETANUS TOXOIDS WITH PERTUSSIS AND POLIOMYELITIS VACCINES

now you can immunize against more diseases...with fewer injections

Dose: 1 cc.
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Dimetane®†

distinguished by its
"...very low incidence of
undesirable side effects..."*

even in allergic infants

FROM A CLINICAL STUDY* IN ANNALS OF ALLERGY

Patients	200 infants and children, ages 2 months to 14 years
Diagnosis	Perennial allergic rhinitis
Therapy	Dimetane Elixir
Results	in 149, *good* results / in 40, *fair* results
Side Effects	Encountered in *only* 7 patients (in all except one, the side effect was mild drowsiness)

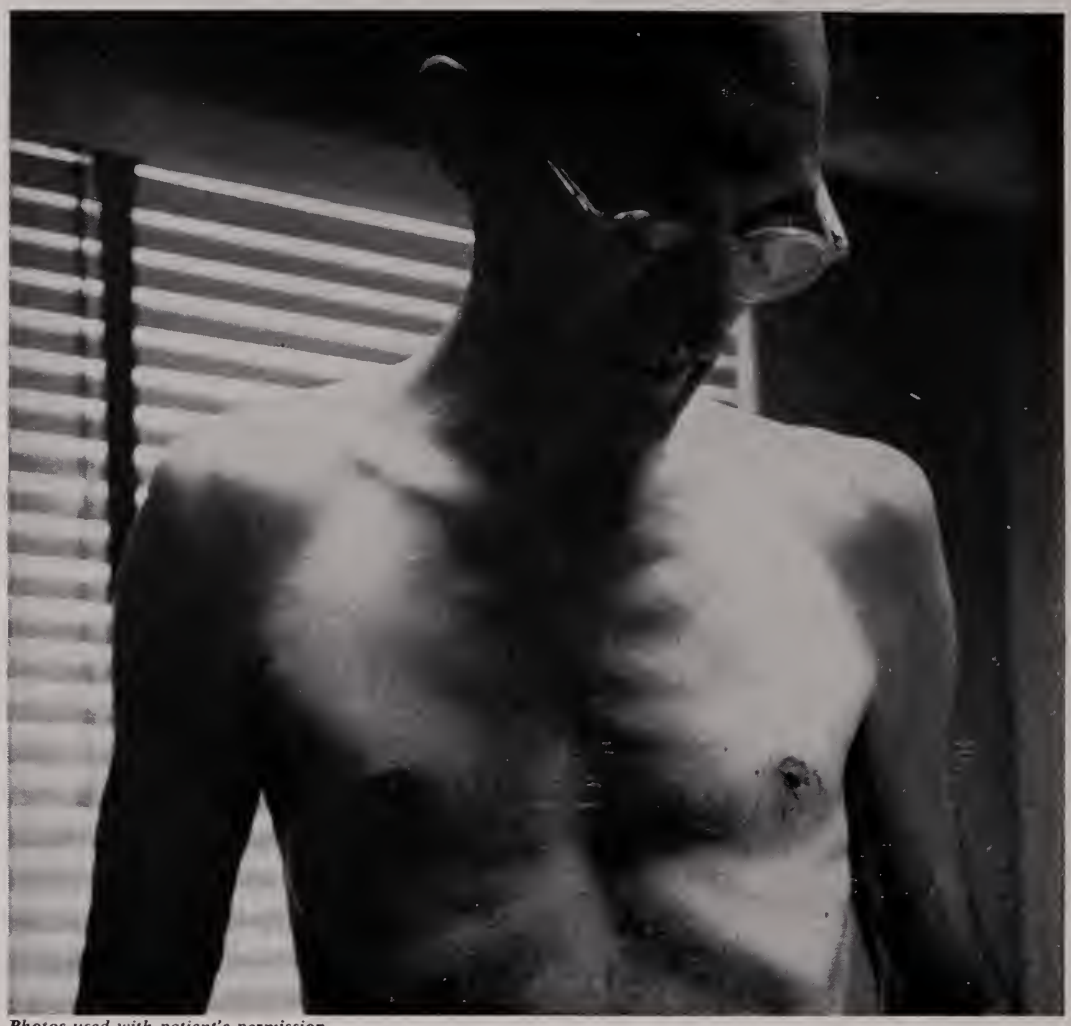
In allergic patients *of all ages,* Dimetane has been shown to work with an effectiveness rate of about 90% and to produce an exceptionally low incidence of side effects. Complete clinical data are available on request to the Medical Department. *Supplied:* DIMETANE Extentabs® (12 mg.), Tablets (4 mg.), Elixir (2 mg./5 cc.), new DIMETANE-TEN Injectable (10 mg./cc.) or new DIMETANE-100 Injectable (100 mg./cc.).

Robins

*MC GOVERN, J. P., MC ELHENNEY, T. R., HALL, T. R., AND BURDON, K.D.: ANNALS OF ALLERGY 17:915, 1959.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA / ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878

† PARABROMDYLAMINE MALEATE



Photos used with patient's permission.

How new Dianabol rebuilt muscle tissue in this underweight, debilitated patient

Patient was weak and emaciated before Dianabol. R. C., age 51, weighed 160 pounds following surgery to close a perforated duodenal ulcer. His convalescence was slow and stormy, complicated by pneumonia of both lower lobes. Weak and washed out, he was considered a poor risk for further necessary surgery (cholecystectomy). Because a conventional low-fat diet and multiple-vitamin therapy failed to build up R. C. sufficiently, his physician prescribed Dianabol 5 mg. b.i.d.

Patient regains strength on Dianabol. In just two weeks R. C.'s appetite increased substantially; he had gained 9½ pounds of lean weight. His muscle tone was improved, he felt much stronger. After 4 weeks, he weighed 176 pounds. Biceps measurement increased from 10" to 11½". For the first time since onset of postoperative pneumonia, his chest was clear. Mr. C.'s physician reports: "He tolerated cholecystectomy very well and one week postop felt better than he has in the past 2 years."

Dianabol: new, low-cost anabolic agent

By promoting protein anabolism, Dianabol builds lean tissue and restores vigor in underweight, debilitated, and dispirited patients. In patients with osteoporosis Dianabol often relieves pain and increases mobility.

As an anabolic agent, Dianabol has been proved 10 times as effective as methyltestosterone. Yet it has far less androgenicity than testosterone propionate, methyltestosterone, or norethandrolone.

Because Dianabol is an oral preparation, it spares patients the inconvenience and discomfort of parenteral drugs.

And because Dianabol is low in cost, it is particularly suitable for the aged or chronically ill patient who may require long-term anabolic therapy.

Supplied: *Tablets,* 5 mg. (pink, scored); bottles of 100.

Complete information sent on request.

Dianabol®

(methandrostenolone CIBA)

converts protein to working weight in wasting or debilitated patients

CIBA
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2/2829MD

Whenever the diet is faulty, the appetite poor, or the loss of food is excessive

through vomiting or diarrhea—

Valentine's
MEAT EXTRACT

stimulates the appetite,

increases the flow of digestive juices,

provides: supplementary amounts of vitamins, minerals and soluble proteins,

extra-dietary vitamin B_{12},

protective quantities of potassium, in a palatable and readily assimilated form.

Supplied in bottles of 2 or 6 fluidounces.

DOSAGE *is 1 teaspoonful two or three times daily; two or three times this amount for potassium therapy.*

VALENTINE Company, Inc.
RICHMOND 21, VIRGINIA

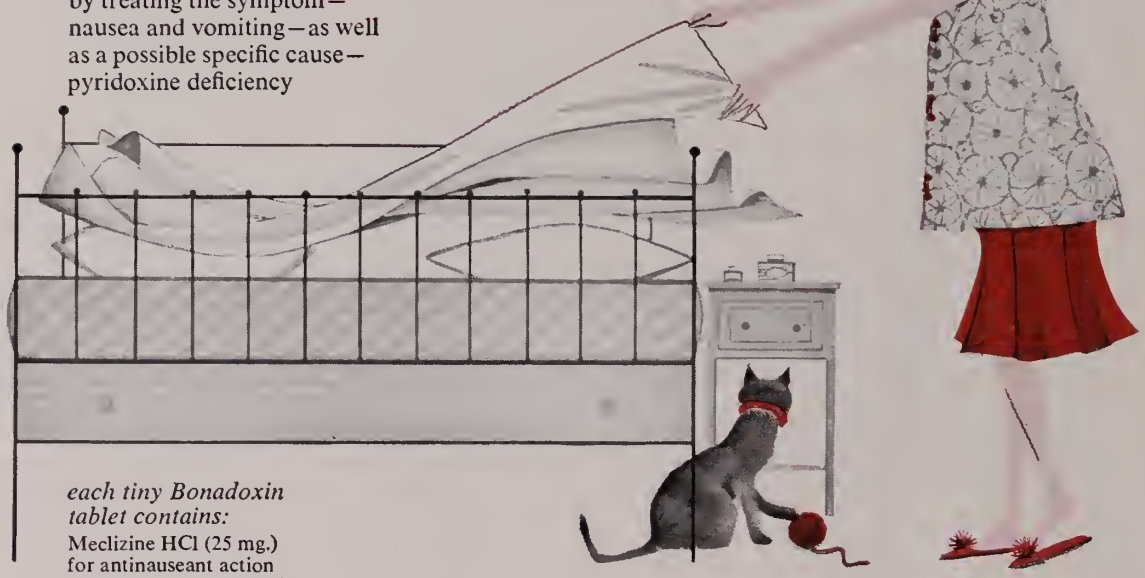
taken at bedtime

BONADOXIN®

STOPS MORNING SICKNESS IN 94%

OFTEN WITH JUST ONE TABLET DAILY

by treating the symptom—nausea and vomiting—as well as a possible specific cause—pyridoxine deficiency



each tiny Bonadoxin tablet contains:
Meclizine HCl (25 mg.) for antinauseant action
Pyridoxine HCl (50 mg.) for metabolic replacement.

usual dose: One tablet at bedtime; severe cases may require another tablet on arising.

supply: Bottles of 25 and 100 tablets. Bonadoxin also effectively relieves nausea and vomiting associated with: anesthesia, radiation sickness, Meniere's syndrome, labyrinthitis, and motion sickness. Also useful in postoperative nausea and vomiting.

Bibliography on request.

For infant colic, try Bonadoxin Drops. Each cc. contains: Meclizine 8.33 mg./ Pyridoxine 16.67 mg.

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"...extraordinarily effective diuretic..."[1]

Efficacy and expanding clinical use are making Naturetin the "diuretic of choice"[2] in edema and hypertensian. It maintains a favorable urinary sodium-potassium excretion ratio, retains a balanced electrolyte pattern, and causes a relatively small increase in the urinary pH.[3] Mare potent than ather diuretics, Naturetin usually provides 18-hour diuretic action with just a single 5 mg. tablet per day — economical, once-a-day dasage for the patient. Naturetin c̄ K — for added protectian in those special conditions predisposing to hypokalemia and far patients on long-term therapy.

Supplied: Naturetin Tablets, 5 mg., scored, and 2.5 mg. Naturetin c̄ K (5 c̄ 500) Tablets, capsule-shaped, containing 5 mg. benzydroflumethiazide and 500 mg. potassium chloride. Naturetin c̄ K (2.5 c̄ 500) Tablets, capsule-shaped, containing 2.5 mg. benzydroflumethiazide and 500 mg. patassium chloride. Far complete informatian consult package circular or write Professional Service Dept., Squibb, 745 Fifth Avenue, New York 22, N. Y.

References: 1. David, N. A., Parter, G. A., and Gray, R. H.: Managraphs an Therapy 5:60 (Feb.) 1960. 2. Friend, D. H.; Clin. Pharm. & Therap. 1:5 (Mar.-Apr.) 1960. 3. Fard, R. V.: Current Therap. Res. 2:92 (Mar.) 1960.

Naturetin Squibb Benzydroflumethiazide **Naturetin c̄ K** Squibb Benzydroflumethiazide with Potassium Chloride

SQUIBB

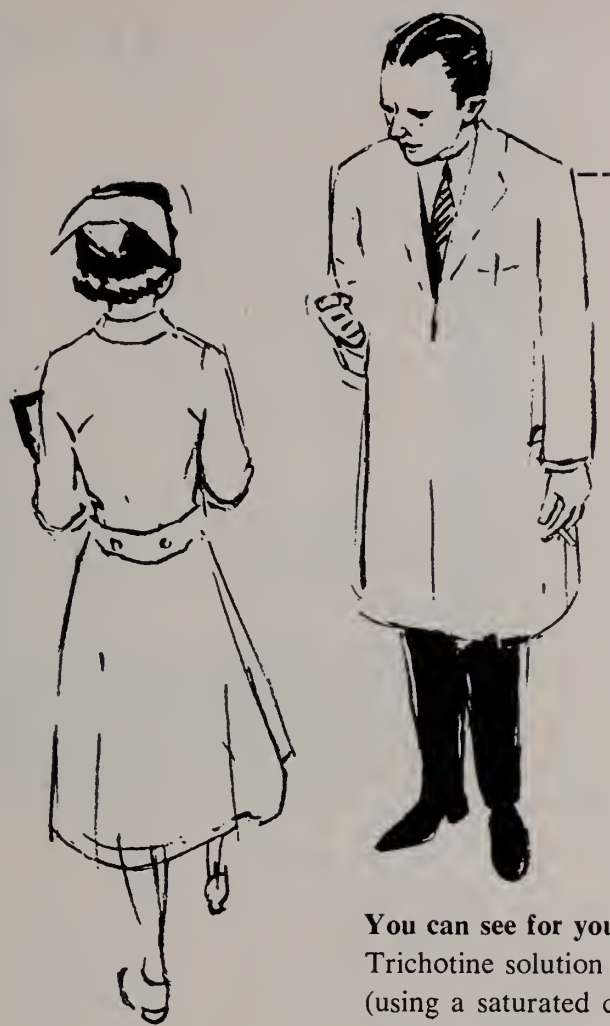
"NATURETIN" IS A SQUIBB TRADEMARK.

The basic question is whether we are to discard the system that has brought us to our present level of health care, and promises much higher levels for the future, in favor of a regulatory strait jacket that stifles initiative, bureaucratizes research, and promises nothing for the future.

You can't go places in a strait jacket...!

An editorial writer recently made the interesting suggestion that the pharmaceutical industry might have avoided much of the current public interest in its affairs if they had simply restricted themselves to making aspirin tablets and rubbing alcohol, competing only by debating which aspirin dissolves faster. • No one has seriously suggested a return to the "good old days" in therapeutics, but there are apparently some who would like to destroy the system that has produced for us the finest medical care in the history of the world. Whether they attack the freedom of the patient to choose his physician, the freedom of the physician in the practice of his profession, or the freedom of the pharmaceutical industry is immaterial. • If the desideratum is simply maintenance of the status quo in health care, medicine might well have rested on its 19th century laurels and the pharmaceutical industry on aspirin tablets and rubbing alcohol.

This message is brought to you on behalf of the producers of prescription drugs as a service to the medical profession. For additional information, please write Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D. C.



"be sure to make up more **TRICHOTINE** solution for our examining room."

You can see for yourself the efficient detergent action of Trichotine solution in reducing promptly a cervical plug (using a saturated cotton pledget), or washing away the "cheesy" exudate of monilia.

TRICHOTINE is just as effective for therapeutic irrigation by your patient at home

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Each of the babies pictured on this page was borne by a mother with a *documented* previous history of true habitual abortion, who was treated with DELALUTIN during the pregnancy leading to this birth

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SQUIBB HYDROXYPROGESTERONE CAPROATE

Improved Progestational Therapy

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DELALUTIN offers these advantages over other progestational agents

• long-acting sustained therapy • more effective in producing and maintaining a completely matured secretory endometrium • no androgenic effect • more concentrated solution requiring injection of less vehicle • unusually well-tolerated, even in large doses • fewer injections required • low viscosity makes administration easy

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Supply:
Vials of 2 and 10 cc., each containing 125 mg. of hydroxyprogesterone caproate in benzyl benzoate and sesame oil.
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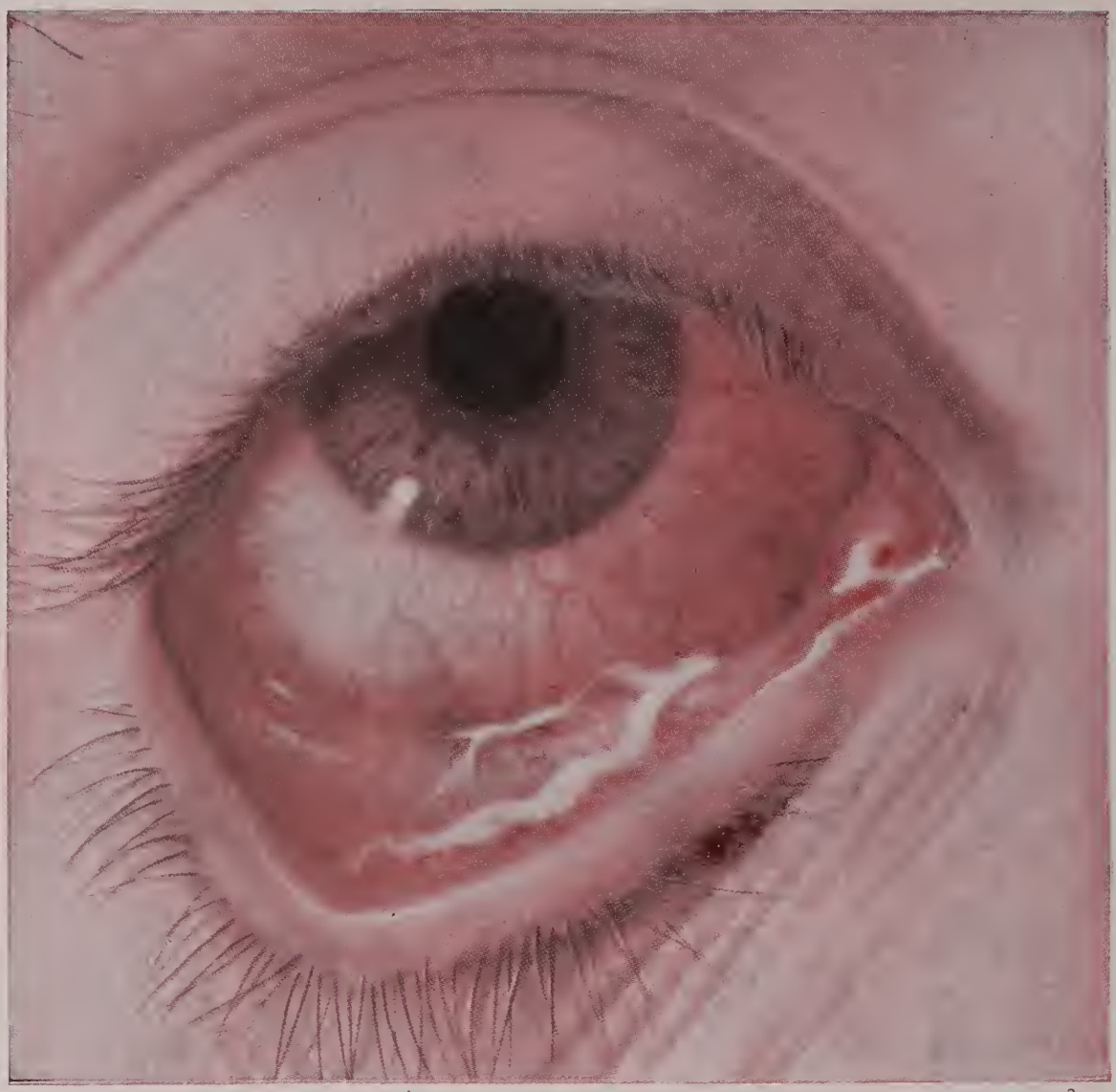

no irritating crystals[1] · uniform concentration in each drop[2]

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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WHY IS DIABETES IN INFANTS SO DIFFICULT TO DIAGNOSE?

Because of the infrequency of the disease in this age group, its sudden onset, the profusion of inconsistent presenting symptoms, and because the accompanying symptoms of anorexia and vomiting are also characteristic symptoms of many other ills of infancy.

*Source: Traisman, H. S.; Boehm, J. J., and Newcomb, A. L.: Diabetes *8*:289, 1959.

for those pediatric puzzlers..."A routine urinalysis and blood sugar should be done whenever the possibility of diagnosing diabetes is entertained."*

DIABETES MELLITUS AT AGES 1 TO 5

Order of Frequency of Presenting Symptoms in 110 Patients

Symptoms	No. of Patients	Per cent of total group
Polyuria	93	84.5
Polydipsia	89	81.0
Weight loss	47	42.7
Polyphagia	28	25.4
Anorexia	16	14.5
Lethargy	14	12.7
Enuresis	7	6.4
Vomiting	5	4.5
Irritability	3	2.7
"Craving for sweets"	3	2.7
"Sticky diaper"	3	2.7
"Strong odor to urine"	2	1.8
Glycosuria	2	1.8
Hypoglycemia	2	1.8
Personality change	1	0.9
Boils	1	0.9
Headache	1	0.9
Abdominal cramps	1	0.9

Adapted from Traisman, H. S.; Boehm, J. J., and Newcomb, A. L.*

the standardized urine-sugar test for reliable quantitative estimations

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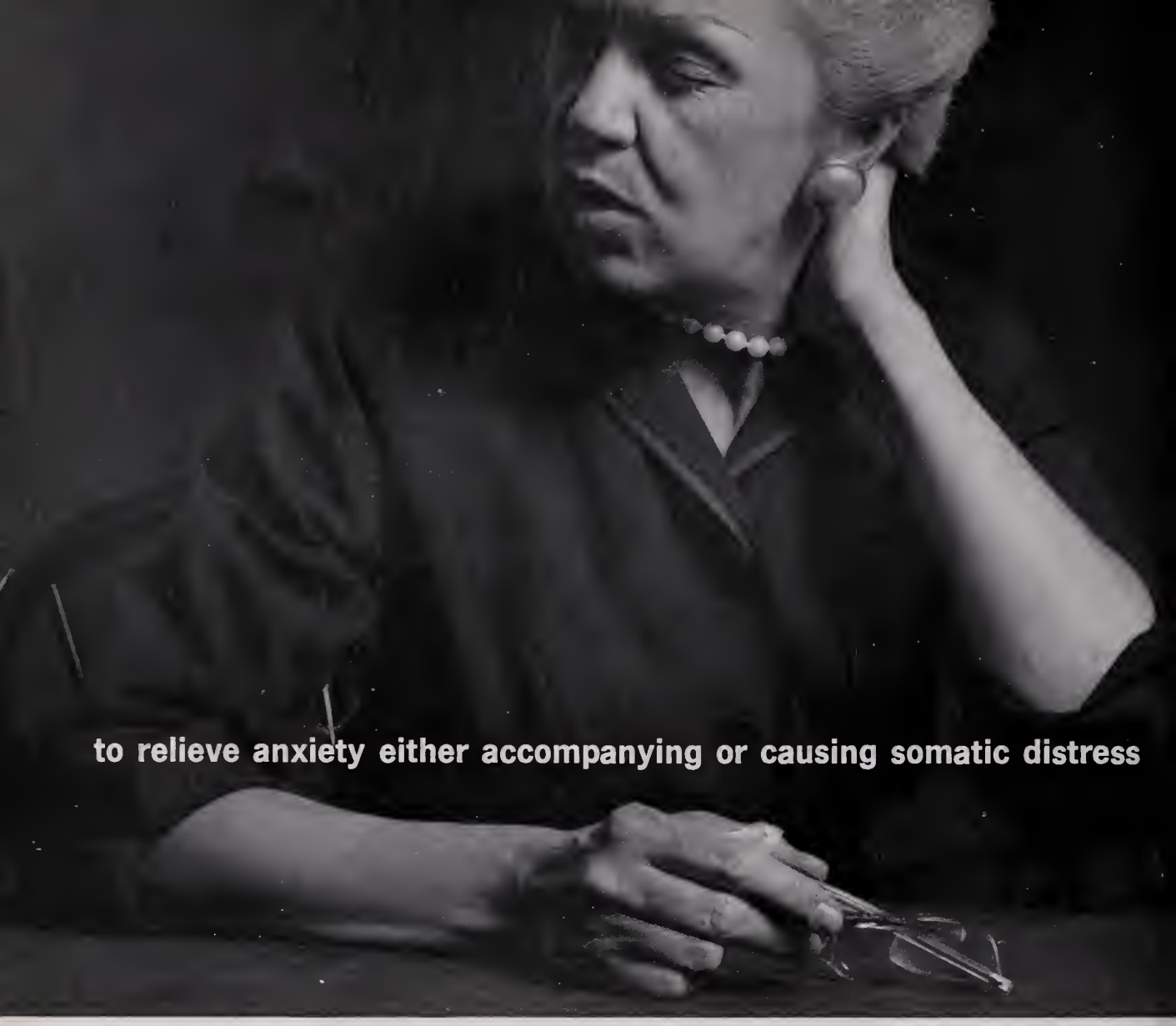

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brand of trifluoperazine

- **Prompt control of the underlying anxiety.** Beneficial effects are often seen within 24-48 hours.
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- **Freedom from lethargy and drowsiness.** Winkelman[2] observed that 'Stelazine' "produces a state approaching ataraxia without sedation which is unattainable with currently available neuroleptic agents; its freedom from lethargy and drowsiness makes ['Stelazine'] extremely well accepted by patients."

Optimal dosage: 2-4 mg. daily. Available as 1 mg. and 2 mg. tablets, in bottles of 50 and 500.

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1. Marx, F.J., in *Trifluoperazine: Further Clinical and Laboratory Studies*, Philadelphia, Lea & Febiger, 1959, p. 89.
2. Winkelman, N.W., Jr.: *ibid.*, p. 78.

SMITH KLINE & FRENCH

VIRGINIA MEDICAL MONTHLY

OFFICIAL PUBLICATION OF THE MEDICAL SOCIETY OF VIRGINIA

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With proper medication, epileptics may achieve success in a wide variety of professions.[1]

for improved seizure control

DILANTIN® SODIUM KAPSEALS®... *outstandingly effective in grand mal and psychomotor seizures:* "DILANTIN *is an effective anticonvulsant which is useful in controlling epileptic attacks of any type with the exception of idiopathic petit mal."*[2] *"It* [DILANTIN] *is one of the few useful anticonvulsants in which oversedation is not a common problem when full therapeutic doses are employed."*[3] DILANTIN Sodium *(diphenylhydantoin sodium, Parke-Davis) is available in several forms, including Kapseals of 0.03 Gm. and of 0.1 Gm., in bottles of 100 and 1,000.*

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LITERATURE SUPPLYING DETAILS OF DOSAGE AND ADMINISTRATION AVAILABLE ON REQUEST.

(1) Abraham, W., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, Williams & Wilkins Company, 1956, p. 132. (2) Crawley, J. W.: M. Clin. North America 42:317 *(March) 1958. (3) Bray, P. F.:* Pediatrics 23:151, *1959.*

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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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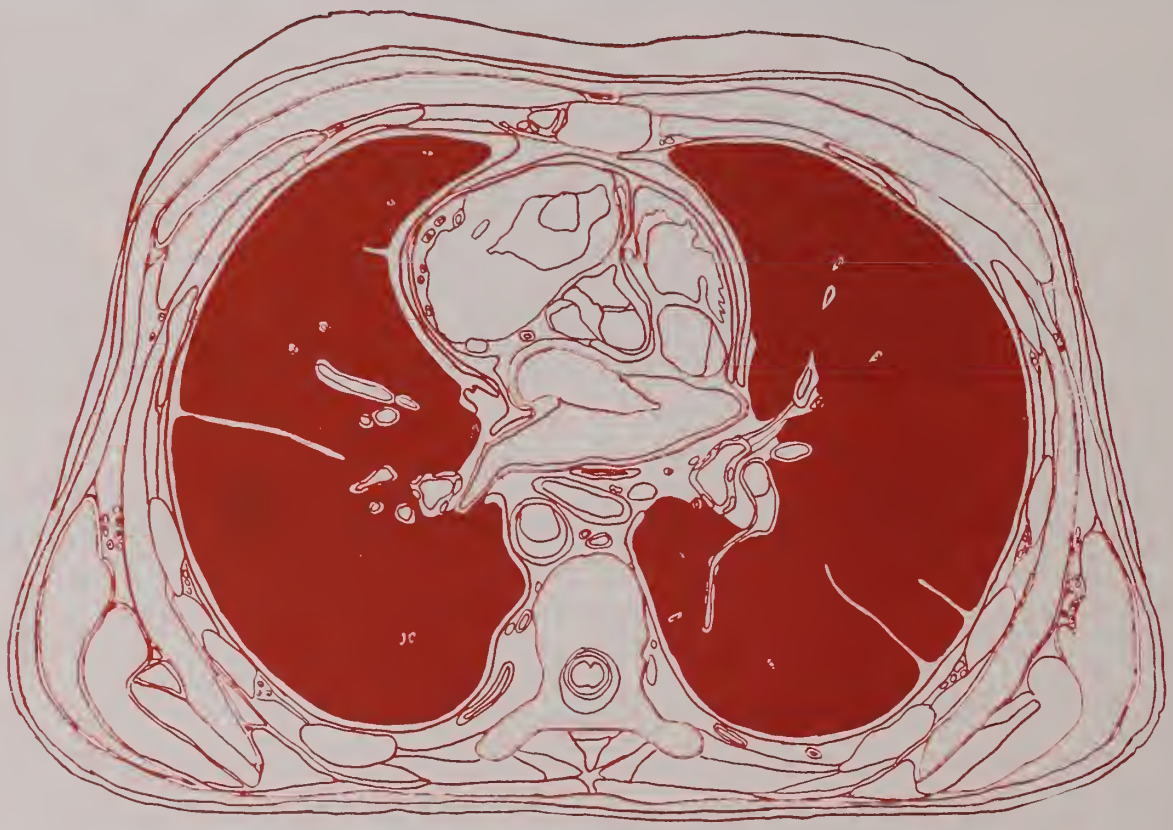

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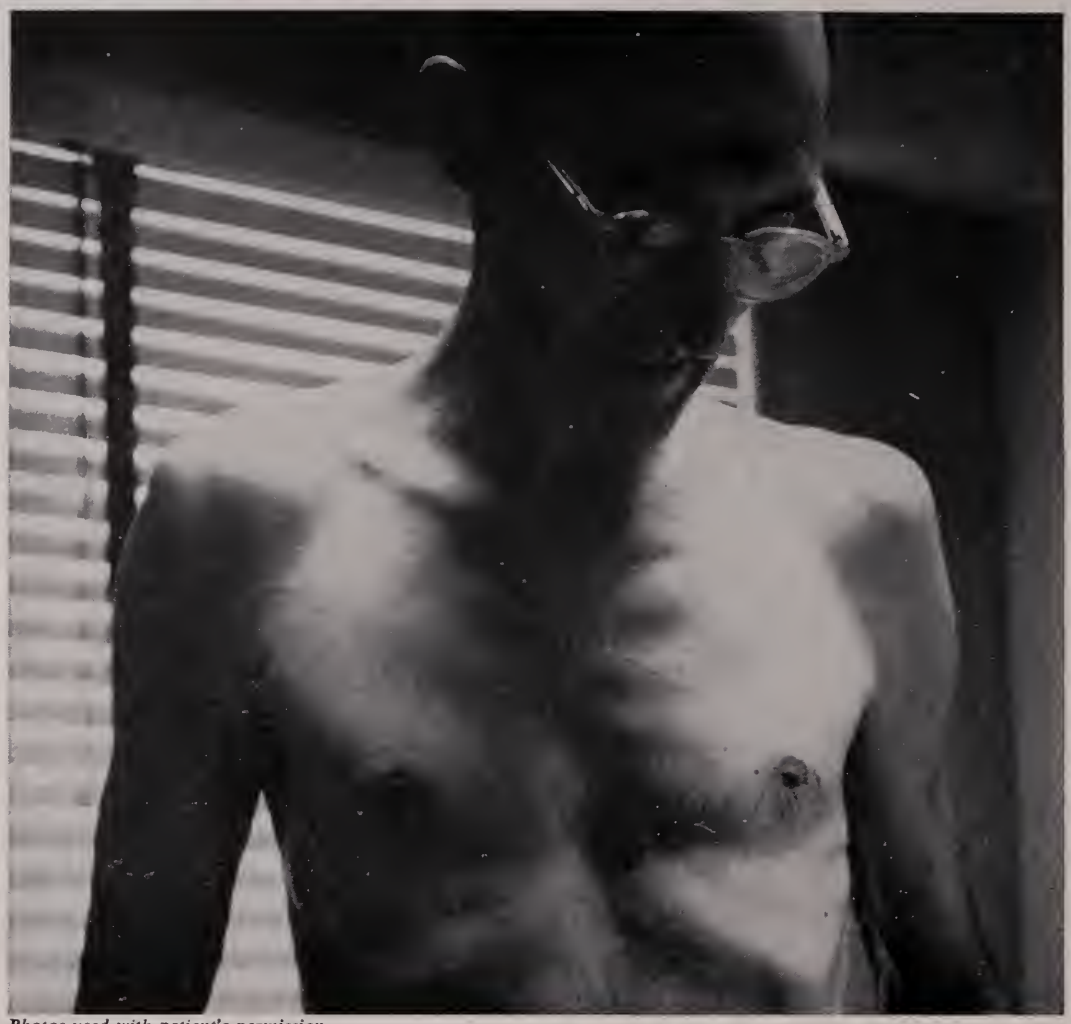

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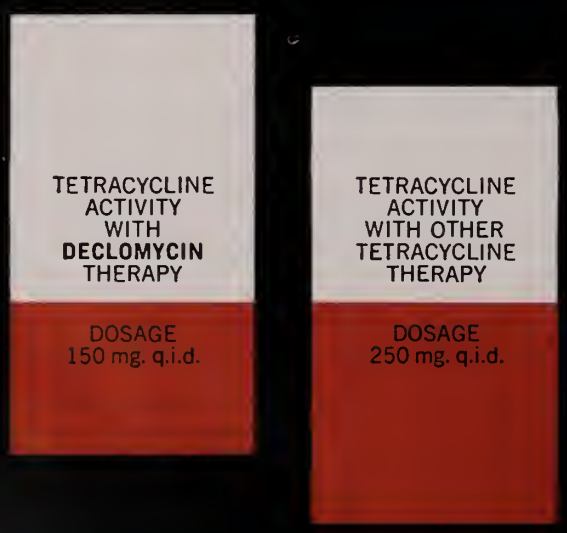

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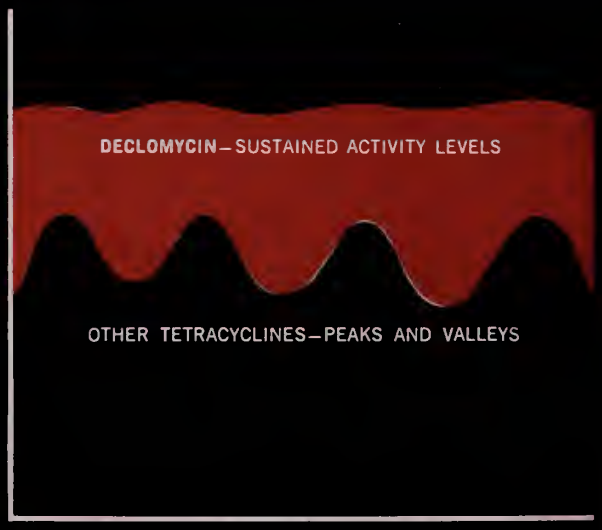

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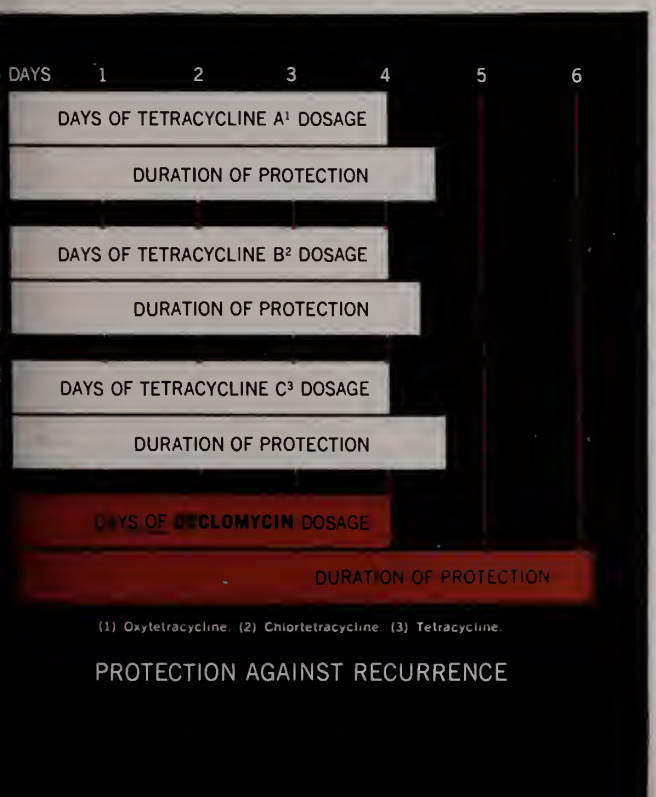

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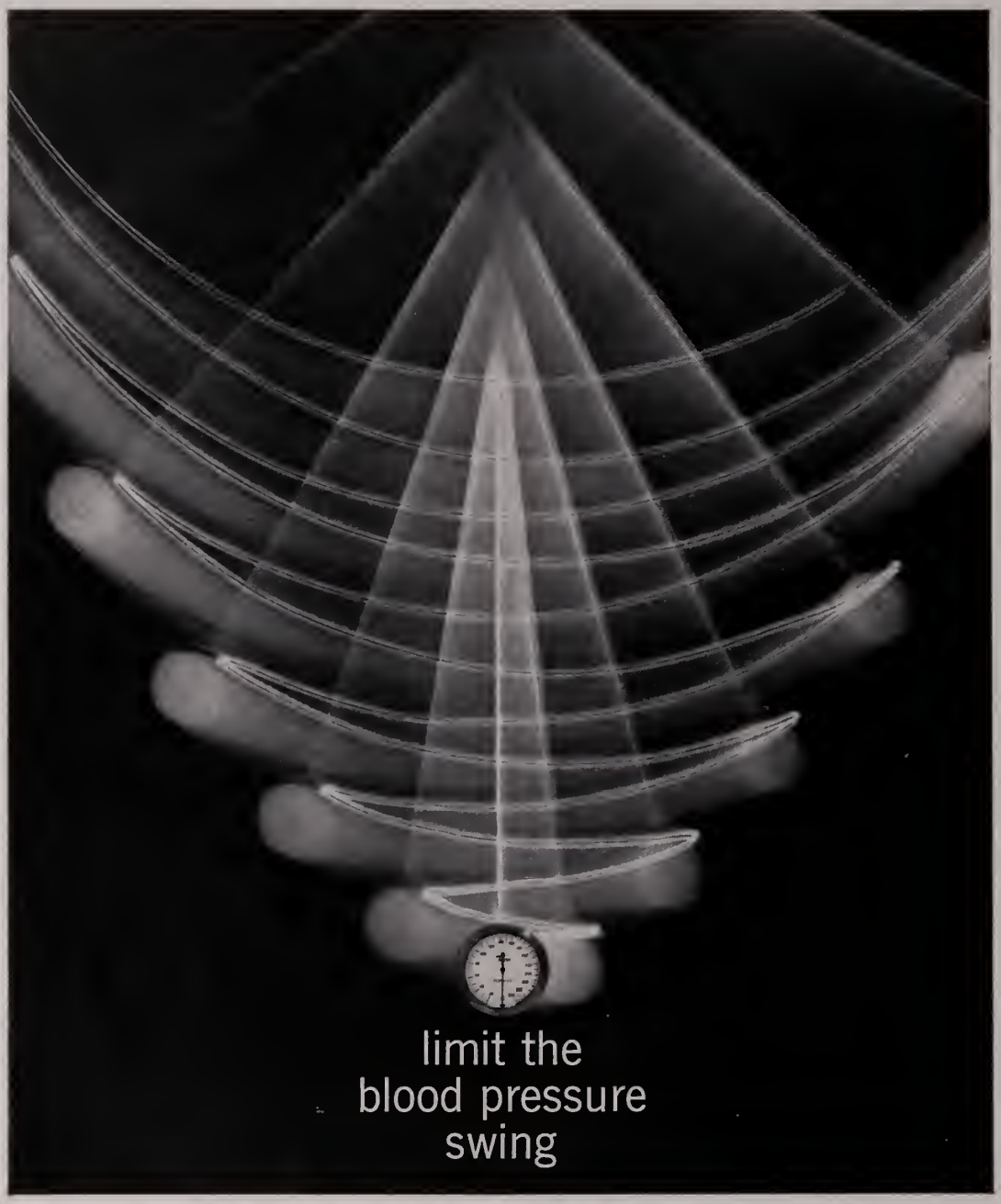

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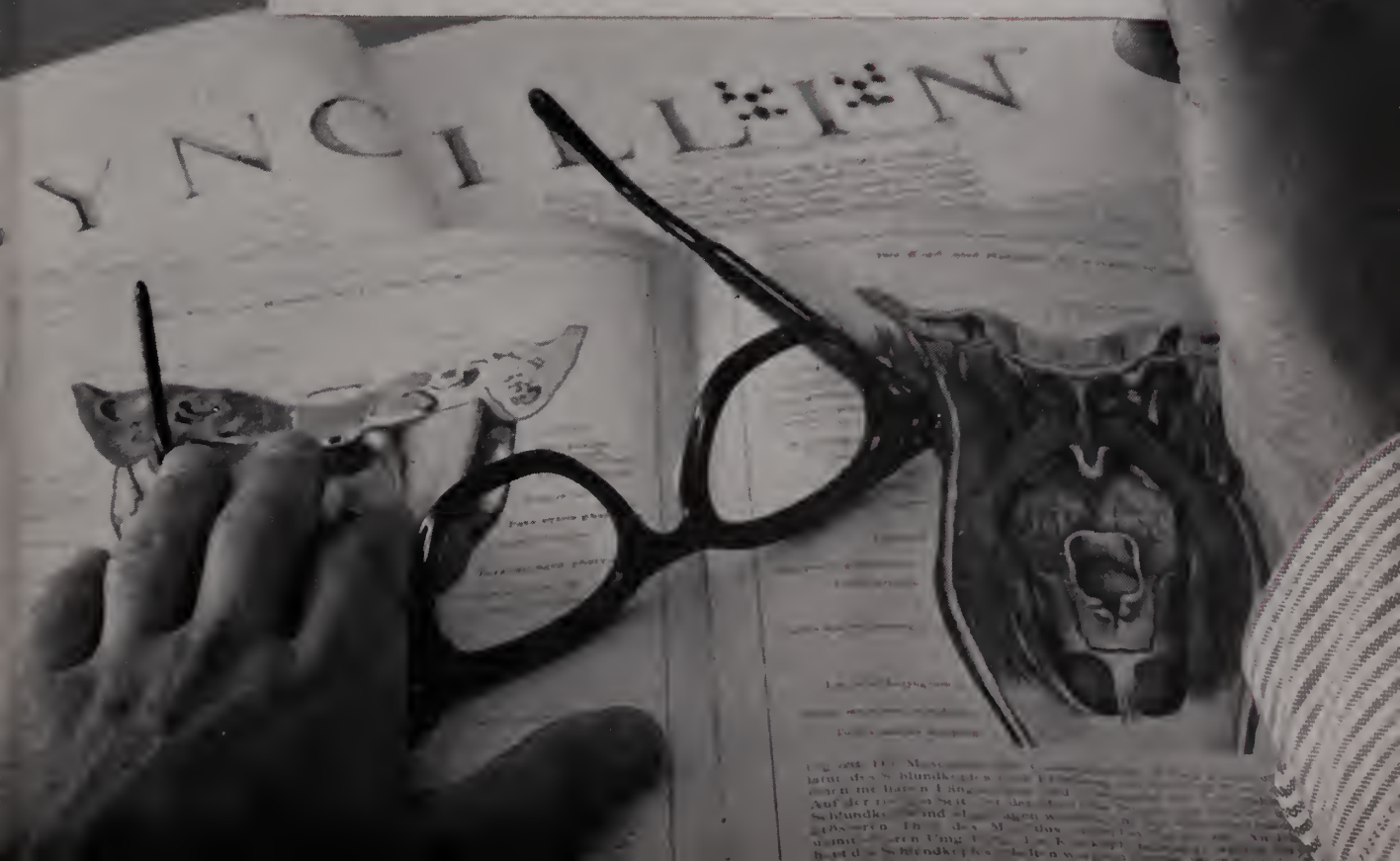

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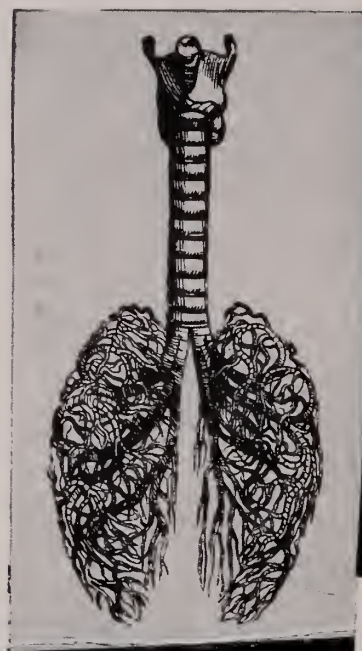

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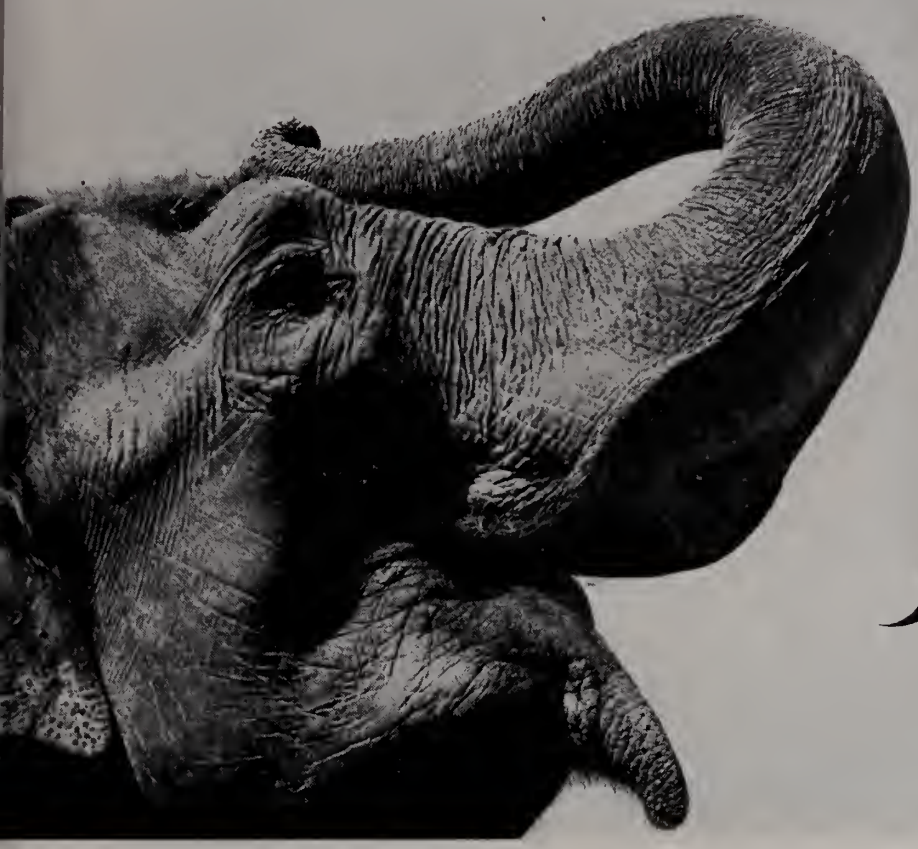
Phenyltoloxamine Dihydrogen Citrate	3.125 mg.	6.25 mg.
Glyceryl Guaiacolate	25.0 mg.	50.0 mg.
Ephedrine Sulfate	2.5 mg.	5.0 mg.

Supplied:
Liquid in 4 ounce and pint bottles.
Tablets, bottles of 50 and 100.

REFER TO PDR
Page 847

THE TILDEN COMPANY • NEW LEBANON, N. Y.
Oldest Manufacturing Pharmaceutical House in America • Founded 1824



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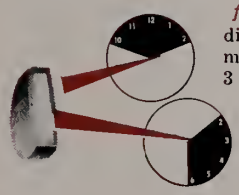
Reaches all nasal and paranasal membranes, huh?"

...and for humans with RUNNING NOSES...

You can't reach the entire nasal and paranasal mucosa by putting medication in a man's nostrils — any more than you could by trying to pour it down an elephant's trunk. TRIAMINIC, by contrast, reaches *all* respiratory membranes *systemically* to provide more effective, longer-lasting relief. And TRIAMINIC avoids topical medication hazards such as ciliary inhibition, rebound congestion, and "nose drop addiction."

Indications: nasal and paranasal congestion, sinusitis, postnasal drip, upper respiratory allergy.

Relief is prompt and prolonged because of this special timed-release action:



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the core disintegrates to give 3 to 4 *more* hours of relief

Each Triaminic timed-release Tablet provides:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient

Each timed-release Triaminic Juvelet® provides:
½ the formulation of the Triaminic Tablet.
Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

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Dosage (to be administered every 3 or 4 hours):
Adults — 1 or 2 tsp.; *Children 6 to 12* — 1 tsp.;
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1. Swartz, H., "Ephoxamine in the Symptomatic Treatment of Bronchial Asthma," Current Therapeutic Research, 1:93:1959. 2. Flothow, M. W., "Ephedrine and Antihistamine Combined Treatment in Allergies," J. of Med. Soc. of N.J. 56:733:1959. 3. Swartz, H., "Ephoxamine as Maintenance Drug Therapy in Chronic Bronchial Asthma: a Preliminary Report," Applied Therapeutics 1:3:1960.

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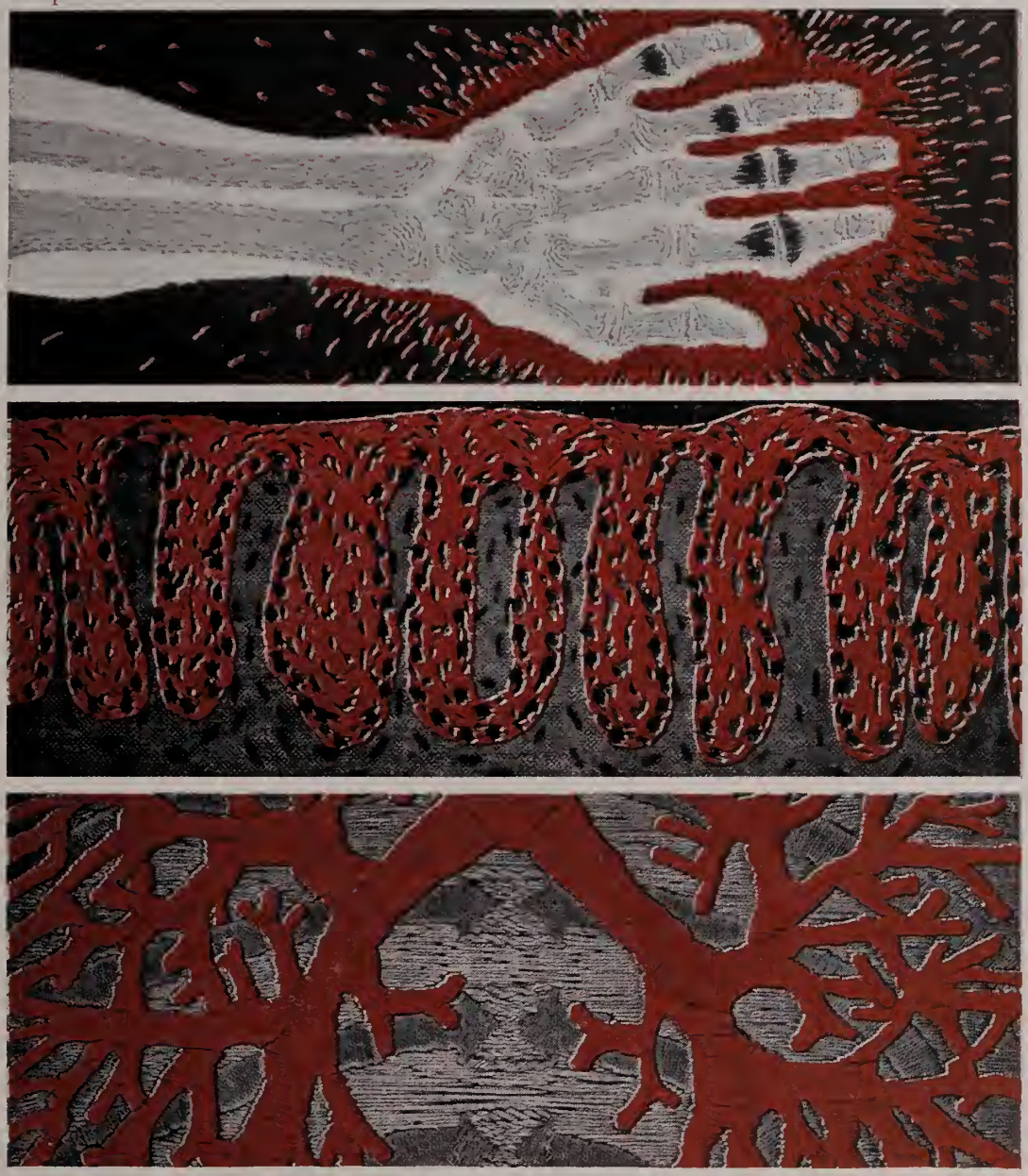

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Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; or as MEPROTABS*—400 mg. *unmarked,* coated tablets.

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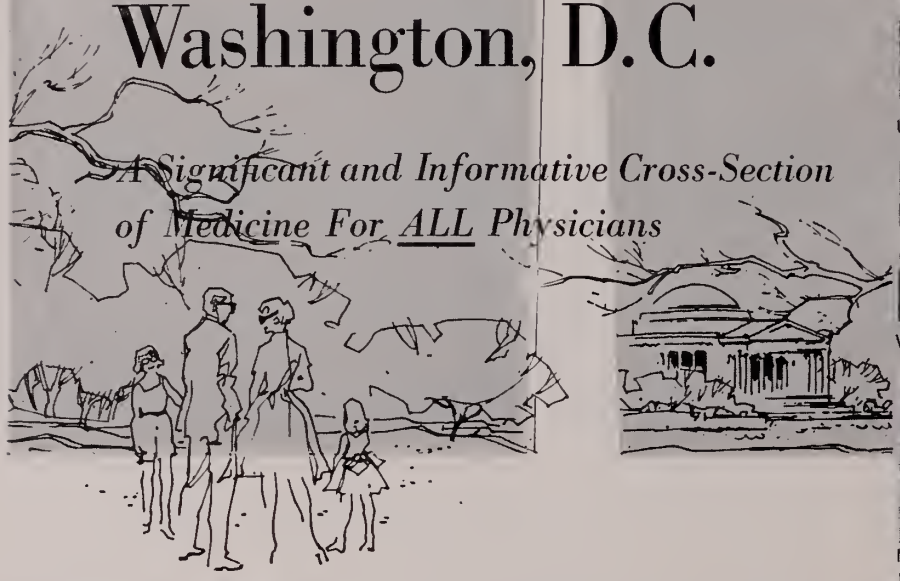

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Supplied: In bottles of 100 and 500.

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new chemically improved penicillin which provides the highest blood levels that are obtainable with oral penicillin therapy

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*Knudsen, E. T., and Rolinson, G. N.: Lancet 2:1105 (Dec. 19) 1959.

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1. Weissberg, G.: Clin. Med., June 1960.

2. Spoor, H. J.: N. Y. St. J. Med., Oct. 15, 1958.

**patent pending*
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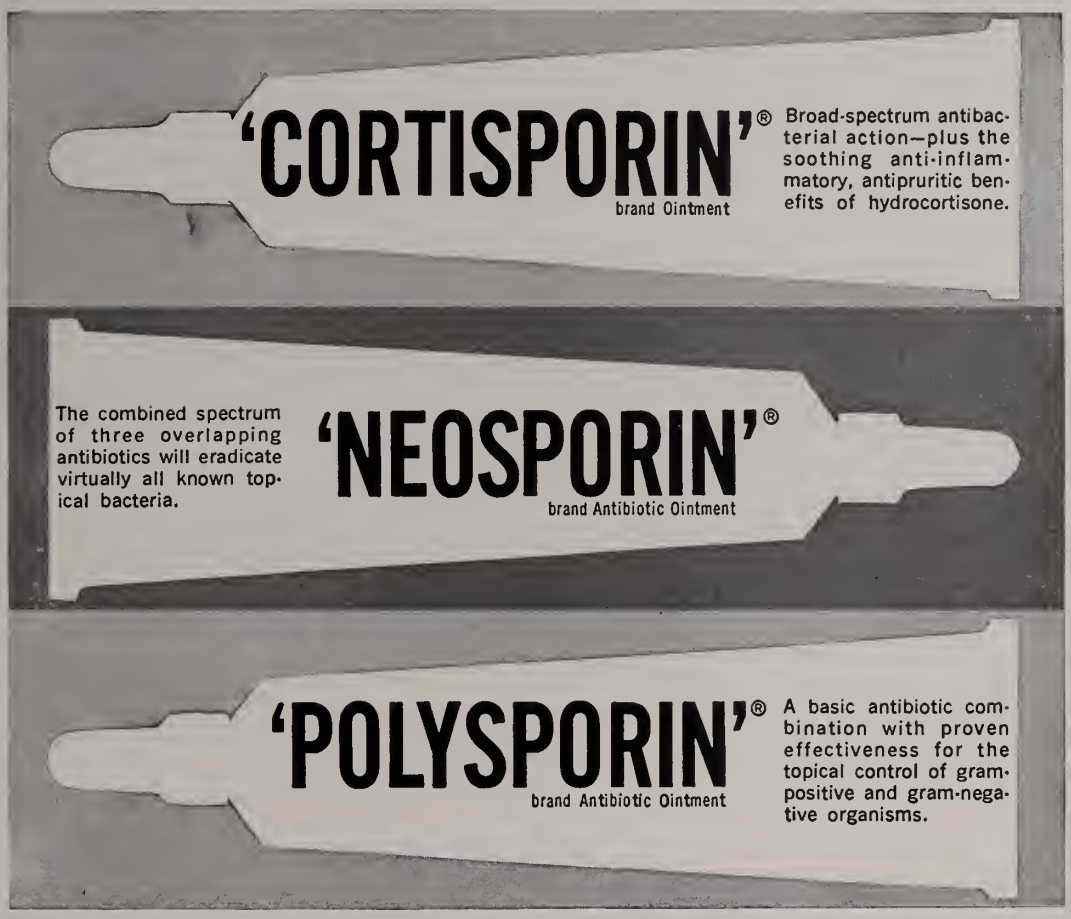

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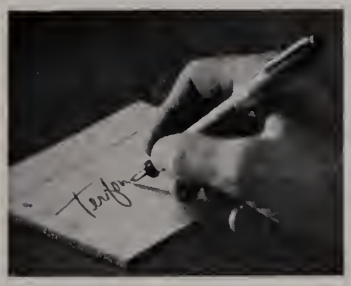

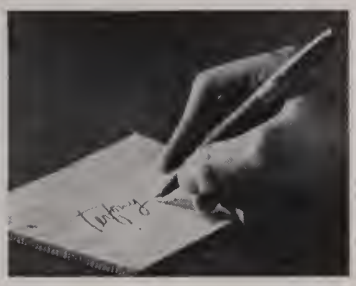

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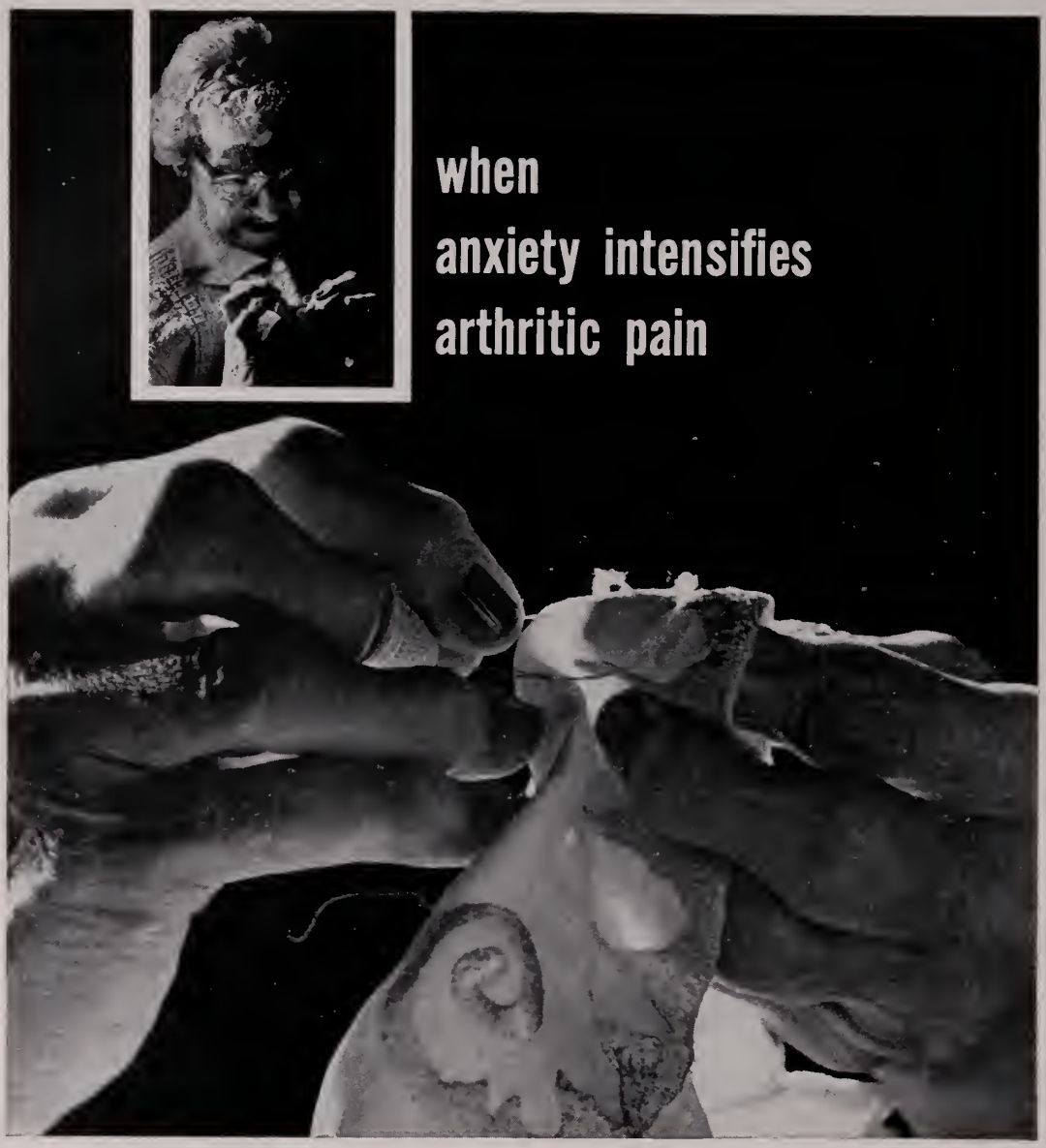

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The Virginia
MEDICAL
MONTHY

October, 1960
Vol. 87, No. 10
Whole No. 1301

Guest Editorial . . . .

The Foreign Medical Graduate

DURING THE PAST few years, many of the hospitals in Virginia, because of necessity, have had some graduates of foreign medical schools on their interne and residency staffs. Ordinarily these foreign graduates have worked in direct association with boys from our own schools. It is an established fact that there is not a sufficient number of graduates from our own medical schools available to fill the vacancies on the house staffs of hospitals that have approved residency programs. This disturbing situation is not likely to be corrected in the near future, since the number of graduates from our medical schools is not increasing appreciably. More general hospitals are being created and there is a tendency on the part of most well-run hospitals to work towards residency approval in the departments of medicine and surgery, and in some instances, towards approval in the sub-specialties. For those of us who are operating hospitals with approved interne and residency programs, we find it mandatory that we maintain an effective house staff. It would be impossible for the visiting staffs in these hospitals to carry on the duties ordinarily assigned to house officers in addition to their own responsibilities.

During the past few months there has appeared in the current literature a widespread criticism of the effectiveness of these foreign graduates in their positions as internes and residents. This indictment in some instances has been so all-inclusive as to convey the impression that the preliminary education which these men have been given in their own schools is completely inadequate, by our standards, resulting in a product which is totally ineffective. Attention is principally focused upon this group of foreign graduates at this time because of the high incidence of failures which has occurred in the examination which these foreign graduates have been required to take in order to remain on the house staffs of approved hospitals in the United States. I have no criticism of this examination. As a matter of fact, I think the examinations that these men have been asked to take are completely fair. These examinations have not included questions which graduates of medicine should not be able to pass. In fairness to these foreign graduates, I think it should be said that the type of examination which is given them is totally unfamiliar to them. The multiple-choice type of examination is confusing to some degree to those of us who are familiar with our own language. Since

the foreign graduates have had no experience with this type of examination, they must necessarily feel an added confusion when they are asked to make selections of answers in view of their language difficulties. Since these men are examined en masse, I know of no fairer way to construct an examination. It is probably unfortunate that this examination for foreign graduates was not instituted soon after World War II when the hospital expansion program in this country was just beginning and the efforts at approval for residency programs in non-university hospitals was in its infancy. During this period no examinations were required of these men and many sub-standard individuals sought training in the United States for various purposes.

During the past ten years, I have had on my service a considerable number of foreign graduates who wanted to prepare themselves to practice general surgery and who were willing to go through a period of training of four years with us in preparation for this specialty. These boys have worked harmoniously with our residents who came from American schools. It has been apparent that these men as a whole have not been taught medicine with the same disciplined instruction that is taught in our own schools, By our values of instruction, it is impossible to produce graduates in medicine with the mass production that is in force in foreign schools. It is apparent that many of these boys have come to America who have had a very limited opportunity for association with clinical patient problems. Some of our foreign graduates have done exceptionally well. In many instances these foreign graduates have done exceedingly good work for us and we have encouraged this group to assume further qualifying experiences in surgery so as to enable them to return to their own lands with a possibility of a bright surgical future. We have been fortunate to have many of our foreign graduates selected for us by our representatives in foreign countries.

After the ECFMG September examinations, which will be held in this country, I am advised that all of these examinations subsequently will be offered in the foreign countries and only those men who pass these examinations locally will be privileged to come to America under the Student Exchange Program. It is reasonable to conclude that these men who will be permitted to come to America under this program for further educational opportunities will offer good material for development.

Unless some of these potential foreign graduates are made available, particularly to hospitals which do not have medical school affiliations, it would be very difficult to maintain a properly disciplined institution.

I hope that medicine is one of the sciences that will always have no political or geographical frontiers. The very fact that these young foreign doctors feel that they have been taught well and that they have been adequately prepared for their life's work in the United States will, in my judgment, create good public relations and reflect a lasting friendship for our country.

J. M. Emmett, M.D.

C. & O. Hospital
Clifton Forge, Virginia

The Use Of Hypnosis And Suggestion In General Practice

J. H. CONN, M.D.
Baltimore, Maryland

Hypnotism is a valuable tool when properly used by a trained therapist. One must understand, however, what can be accomplished and what cannot, as well as when its use might be beneficial and when harmful.

IN 1942, a young, married woman, whom I had interviewed several times asked: "Why don't you do something else besides talking to me? Why don't you hypnotize me?" I was willing to do so, but as I had never hypnotized anyone previously, I hesitated until the patient added the additional stimulus, which I needed by saying; "I know that you can hypnotize me, because my husband can do it, and he is not even a doctor." As my professional self-esteem was at stake, I held up my hand with an assumed self-assurance and before I had a chance to speak, the patient entered into the trance state; she had hypnotized herself.

This initial experience 18 years ago taught me humility. All I had done was to "set the stage", it was the patient who had satisfied a specific psychological need by establishing a specific type of interpersonal relatedness which was characterized by passive compliance and selective attention.

Thus, at the very beginning of my interest in hypnosis, I learned that anyone, even someone who was ignorant of the theoretical and technical implications of hypnosis can "hypnotize" a patient.

Even when the patient is skeptical, and says that he has no faith in hypnosis, it is how he behaves rather than what he says, which indicates the degree of his unconscious need for a regressive, compliant relationship.

The ideal patient is intelligent and able to concentrate on what is being said, and to believe that whatever the doctor says will happen, can and does happen. In brief, if the patient will look where you tell him to look, if he will pay attention, only to what you say to him, if he will become passive and let things happen, then he can be hypnotized effectively.

The doctor, in turn, must be convinced of his ability to succeed and learn to overcome the feeling of self-consciousness during the introductory phase when he is instructing the patient how to act and what to expect.

In selected cases hypnosis has been used to relieve pain in terminal cancer,[2] in severe burns,[14] and in minor and major surgery.[18] It is helpful in reducing anxiety in dental care[16] and obstetrics, and has been of value in the treatment of habituation, obesity, stuttering, and skin conditions.[20] Each individual must be evaluated in regard to his motivation, his secondary gains, and his ability to live comfortably without his neurotic "crutches". In psychiatric practice I have used hypnotherapy in the treatment of neuroses,[6] sex offenders,[7] and severe hysterical depressions[5] with some measure of success.

The psychodynamics involved in the hypnotic relationship can briefly be summarized as a need to dominate or be dominated which may include a fear of losing control of one's will, a desire to be humiliated or overpowered, or a need for dependency. Hypnosis to some patients may mean death, a homosexual relationship, or symbolize a rebirth fantasy.[12]

The hypnotist also must know himself, and not derive too much vicarious satisfaction or "power" from the treatment of the patient while in the trance state. He must be aware of the dangers of becoming involved in the patient's paranoid projections, of arousing repressed conflicts which may overwhelm the patient, of becoming the object of the sexual fantasies of the patient, or of removing symptoms in

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disturbed, unstable individuals who require their symptoms as "defenses".

The dangers of hypnosis are those which accompany every psychotherapeutic relationship. Anyone who hypnotizes a prepsychotic patient without knowing what he is getting into is like the fool who ventures where angels fear to tread. *Psychiatric training is an absolute prerequisite for intensive hypnotherapy.* The average practitioner should confine his hypnotic efforts to the preparation of the patient for surgical procedures, the alleviation of pain (analgesia and anesthesia) and post-operative comfort.[10]

The doctor continually is making direct and indirect suggestions to every patient. A negative physical examination suggests, "You can stop worrying." An injection suggests: "You are now being cured," and a prescription for a tranquilizer suggests that the neurosis is an organic disease, and that the underlying conflicts can be ignored (repressed).[17]

Hypnosis like penicillin should be used discriminately and always with the *full* consent of the patient. Some time ago I readily hypnotized an apparently compliant patient who had been successfully treated hypnotically during a previous illness. However, on this occasion no progress was made and soon he broke off treatment with no explanation. Later he returned after having had electroshock therapy, which only increased his anxiety and phobic state. He then informed me of the severe tension which he had experienced during each hypnotic session. He explained that he had not complained because of his neurotic fear of offending me and asked, "Don't you *talk* to patients any more?" I reassured him that I did, and then treatment could proceed in a way which was better adapted to the patient's needs and not to my own preconception of what the treatment should be.

The general practitioner should always begin by using waking suggestion. Certain patients are *more* suggestible when fully awake.[13] The doctor who tells a patient, "You are beginning to look better. You are one of my *best* patients and I expect you to improve even more during the next two weeks," is bringing "new life" to his patient. A recent study of glaucomatous patients by Berger and Simel[1] demonstrated that intraocular tension was reduced more effectively when the doctor directly told the patient, in a sincere manner, that his headaches would disappear and that his eye condition had improved, than when suggestions were given either while the patient was under hypnosis or posthypnotically.

Some patients are most suggestible when asleep, and others respond best to suggestions in the light stage of hypnosis. A patient may develop a somnambulistic state and still may not respond to suggestion if he is not properly motivated. Wolberg[20] tells of a doctor who requested to be hypnotized to prepare himself better for the New York State Board examination. He was an excellent subject and all went well. On the day of the examination he called Wolberg and sheepishly confessed that he had overslept. His father had insisted that the patient take the examinations in New York, but the young man had a sweetheart in another state and preferred to take his boards in that state. He had solved the problem by oversleeping, after having consented to take them in New York to please his father.

Many patients are passive and remain silent as soon as they develop the specific interpersonal relationship which is the trance state.[3] These individuals should be told, "Enjoy being relaxed. You have nothing on your mind. That is good. Don't say anything until it comes to you naturally and without effort. What you say is not as important as how you act in keeping with your natural, real feelings. You can say nothing and get well, if that is what you want to do." In this manner[4] the patient is free to find his own way of expressing himself while in the trance state.

One of the recurrent problems is the patient who insists that he has not been asleep hence he has not been hypnotized. Hypnosis is not sleep—it is "imitation" sleep. I, therefore, inform my patient that hypnosis is *not* sleep and that if he wants to sleep to do it at home. "You come here," I say, "Not to sleep, but to learn how to relax, and how to live more effectively, fully and without your present complaints."

I have expressed criticism of the use of sleep suggestions (that the patient will become tired and sleepy, etc.) in the induction of the "trance" state. This type of formulation represents hypnosis as being closely allied to physiological sleep, and necessarily implies a maximum degree of passivity on the part of the patient who supposedly is being overcome by an impersonal process. It always is embarrassing to the doctor, when the patient who is being "hypnotized" by being told repeatedly that he is getting "sleepier and sleepier", replies, "Doctor, I don't feel sleepy at all."

I, therefore, always keep in mind that the patient does not have to be "genuinely hypnotized" in order to get well. The silent, passive patient who is difficult to hypnotize is instructed how to relax with his

eyes closed and told to concentrate upon some neutral topic (such as the furnishings in his house), while I repeat he can expect to recover from his complaints. In this manner from the beginning the patient is subjected to two processes, while he is learning how to relax up to the point of drowsiness. The purpose of one being to induce the hypnotic state, or as I prefer to say, the hypnotic relationship; The other process is to relieve disease by therapeutic suggestion. Often the latter is successful *before* the patient is "hypnotized".

The traditional concept of hypnosis as being a passive, physician centered technique is no longer in keeping with the facts. The hypnotic condition more closely approximates the waking state than it does physiological sleep. The patient in the trance state is very much aware whether he is being investigated (a physician centered goal) or being treated in accordance with his basic personality needs.[6]

What was called Rapport by the early magnetizers is now known as Transference. It is this emotional relationship between the doctor and his patient which is the basic principle in the art of everyday medical practice. An enthusiastic doctor who prescribes a "wonder" drug obtains the effect that his patient has been told to expect. An investigator who believes implicitly in the beneficial result of Thorazine can achieve a marked improvement in 77% of his patients, while a more critical colleague only gets 10% moderate improvement in a comparative series of cases.[15] When the new drug becomes less popular its therapeutic effect becomes markedly reduced. This is what occurred after the introduction and initial wide acceptance of bromides, chloral hydrate and the barbiturates, each of which was hailed as a "wonder" drug, and it also will happen to the "tranquilizers".

Our medical forefathers were more aware of the personal influence of the physician than we are at present, when a new "miracle" drug arrives by mail almost every day. Sir Daniel Wilkes in an address delivered in 1894 was of the opinion that "To sit down in one's chair daily and write on a piece of paper the name of some drug for every ailment without exception, which comes under our observation, is in the present state of medicine, an absurdity and is simply pandering to human weaknesses. . . . I know of no more successful practitioner than the late Sir William Gull and his treatment was rational, but he did not credit any particular drug with the properties ascribed to it by the patient. His prescriptions very often consisted of nothing but colored water."[36]

The older physicians can recall when medicine to be really effective had to have a bitter taste, and if it had a bad smell, the patient was even more satisfied. Times have changed and medicinal formulas have become more elegant, but the effects of suggestions have remained unaltered. The value of the placebo has been brought to the attention of the profession by a number of investigators.[20,25,30] The term, placebo, means, I shall please, and represents the influence of the doctor, upon whom the patient depends for both care and emotional support. Every medical procedure includes the same fundamental ingredient, the personal worth of the doctor. The actual cause of a patient's improvement may escape the doctor's attention, but any procedure is helpful if the patient believes that it is. The good result may be inadvertent, as in the case of the patient who reported that he was very much improved since his last visit. When asked what had helped him most, his reply was that it was due to the "treatment" during which a cuff had been wrapped around his forearm then compressed and released several times until his circulation had returned to normal! Similar improvement has been reported following an electrocardiogram "treatment".

We may smile at the naivete of the patients, but the recent popularity of natural childbirth is evidence that waking suggestion still is with us and always will be. I quote Dr. Nicholson Eastman, Professor of Obstetrics at Johns Hopkins, "As for myself I have always regarded the breathing exercises as pure bunkum. The only end they serve, as I see it, is to give the parturient something to think about other than her labor pains. If instead of being taught ways of breathing she were drilled in some form of mental gymnastics . . . and *was made to believe* that assiduous concentration on this mental arithmetic would produce natural childbirth, the end results in my opinion would be equally good."[18]

I agree unequivocally with Professor Eastman's astute observation. It has been demonstrated repeatedly that when a patient does not pay attention to a pain stimulus, he is not quite as aware of its noxious effects. This is just as true for the parturient, who is preoccupied with her breathing exercises, as for the wounded soldier under stress of combat. The pain threshold can be raised by concentration on some unrelated subject, by distraction, such as repeated loud noises, and by suggestion, especially if combined with relaxation.

There is absolutely no difference in kind, between hypnotic suggestion and the waking suggestion which already have been described. The arthritic invalid,

who believes that his condition is being effectively treated, while seated in the pit of an inactive "uranium" mine, will obtain the same temporary relief as the patient who receives post-hypnotic suggestions or placebos. Trant and Passarelli have reported that in cases of rheumatic arthritis, "the number of patients benefited from placebos is about the same as that of those influenced by methods of therapy reported in other studies." [21]

Hypnosis is nothing more than the suggestive, placebo effect presented in a specific inter-personal setting.

Hypnosis is not sleep. The electroencephalogram, the basal metabolic rate, and deep reflexes of the hypnotized patient are normal.[10] Hypnosis is imitation sleep, which is in itself the product of cumulative suggestions. The practice of hypnosis is based upon the art of combining "directed attention" with "relaxed detachment" so that their combined effect can be developed to the highest possible degree for each patient. Hypnosis comprises a number of independent, psychologic transactions, each augmenting the other, until a special type of interpersonal relatedness is established which is the trance state.

The good hypnotic subject, therefore, must not only consciously desire to cooperate, but must have an unconscious wish or need for a regressive interpersonal experience, which makes it possible for him to "mentally and bodily comply" and to "literally think as the operator wants him to think."

It is wrong in principle and misleading in practice to begin by informing the patient directly or indirectly that he will recover as soon as he can recall certain "buried" memories. What usually happens in these cases is that the patient feels compelled to fabricate traumatic memories in order to please the therapist. It has been demonstrated that patients fabricate more easily under hypnosis than in the waking state. It also is an accepted clinical observation, that each hypnotist receives those psychological contents, which he has indicated to his patient, as being the ones that he is specially interested in.

This reminds me of the story told by Sid Caesar when he played the role of the Professor, who was seeking an explanation of his patient's chronic insomnia. "I made him go back, as far back as he could go in his memory," said the Professor, "Until the patient remembered that when he was an infant his mother had told him to open his eyes, and then had forgotten to tell him to close them!"

If this appears humorous, let me tell you about the patient from a city in the deep South, who was referred to me for the treatment of torticollis. He was a successful, ambitious, business executive who had "outgrown" his dutiful wife and felt guilty because he was thinking of divorcing her. In a matter of several minutes, after readily entering the trance state, his head became as straight as an arrow. The patient was aroused and permitted to see the "wonderful" cure in a mirror, but expressed himself as being dissatisfied. "Why", he asked, "can you do this and why can't I? I won't be satisfied until I can do it myself." As he departed for home, he asked me for the name of a book, and I mentioned Horney's The Neurotic Personality of Our Time. The patient wrote to me several months later that the book had contained a statement (which is untrue) that a patient is cured when he remembers an early trauma. The patient was pleased to report, that he had succeeded in recalling an early trauma, which had occurred at two, when he had a hernia operation and had "almost died". "Certainly", he wrote, "That must have been a real traumatic experience for a two year old." He had been able to straighten out his head and to keep it straight after *he* had recalled this traumatic event, and promised to come to visit me, so as to prove that he was symptom free. A few weeks later he dropped in on his way to Washington to demonstrate that his head was "as good as new".[6,7,8]

Hypnotherapy, if it is to be accepted as one of the dynamic psychotherapies cannot remain naïve and unsophisticated but must learn to avoid the erroneous practices which have been proven ineffective therapeutically over a period of 50 years. You cannot turn the clock back to the time, when therapeutic suggestion was the only way to help the neurotic patient. The patient cannot be coerced into getting well by any approach decided upon in advance by the therapist. The patient must find his own way, as well as his own time, when to get well, just as the doctor must develop his own way of helping the patient. You cannot "give" a patient insight by telling him what is wrong when he is awake or while he is hypnotized. Insight, the kind that leads to personality integration is not an intellectual, rational process but an emotional reconstructive process coming from within and not from without. Neurotic patients are afraid to get well too quickly because they are not mature enough to live without gratifying such infantile needs as excessive attention, sympathy, and guidance. They seek someone to tell them what to

do and how to do it, then react by feeling hostile and guilty. They cannot surrender these emotional supports or defenses without feeling overwhelmed and anxious. They will torture themselves, if by this means they can satisfy an infantile need to obtain sympathy and get closer to someone.

Bertha B. is an immature mother of two children who was unable to cope with a domineering mother, a passive, dependent husband, a phobic younger son, and an asthmatic older boy. She demonstrated her failure to master this situation by developing severe exhaustion and a feeling as if she were about to collapse. The patient recovered completely with waking suggestions after three sessions over a period of three weeks; nevertheless, she became more unhappy. When asked why, she said, "When I was sick I was the center of attention. My brother, who seldom came to see me, visited often and was interested in me. My mother was more understanding, and even my husband was helpful. I was happier when I was nervous than I am now. Now that I am well no one seems interested in me anymore. I guess I got well too soon." A week later all of her symptoms had returned and it was three years before they disappeared again and she was able to live without her neurotic defenses. The doctor who tries to "cure" these patients too quickly is like the boy scout who was escorting a struggling old lady across a busy street and finally, after much effort, made it to the other side, only to have the old lady say, "Young man, I was going the other way."

The value of suggestion and abreaction lies not in themselves but in the fact that the patient is ready (set), able (mature enough), and willing (unconsciously wishes) to get well and to remain well (self-sufficient and realistic). Only then can he endow the therapist of his choice (the transference-object) with the power to cure him.

The need to please the therapist has been referred to several times. Masserman has discussed the behavior of a patient "in deep hypnotic trance" who was regressed to her second birthday. Then directed to relive her birth to which she responded by a halting, tortured reply, "I feel cramped. Now it's cold!" He then told her she was in her eighth month of intra-uterine life, as anticipated, she responded with the simple statement, "It throbs." Masserman correctly surmised that the patient, a student of biology, "in accordance with an intense transference determined desire to comply had produced an impossible screen memory", and concluded that, "This and similar experiences have demonstrated to me that it is a wise hypnotist who is continually aware of just who is hypnotizing whom." [19]

Modern hypnosis makes relatively little use of the authoritative approach in which the hypnotist "orders" the patient to go into the trance state. The present day hypnotist may utilize age-regression techniques and re-vivication, automatic writing and drawing, parallel experimental neurosis, symptom substitution, crystal gazing, suggested dreams, acting out of fantasy, intensification and recognition of emotions and abreactions against key figures.

The psychologic processes which result in hypnosis are genuine phenomena which can be utilized therapeutically. Hypnosis can be used for relaxation, to relieve pain, to facilitate the recall of traumatic events, to alleviate anxiety, and to regress the patient to earlier life periods in order to recapture repressed significant memories.

The average person can become a hypnotist. Normal, intelligent, muscular persons are the best subjects for hypnosis, and not the neurotic, feeble-minded or psychotic individual.

The patient will not do anything contrary to his moral code if it is *directly* suggested. But if his preceptions and conceptions are altered he may steal or attack any person who is pointed out as being a danger to himself or to his loved ones.

The patient awakens when he is told to do so with very few exceptions. It takes much more skill to induce the trance state than to arouse the patient, who, if let alone, will "sleep it off". Failure to awaken (to "de-hypnotize") usually is due to:

(a) the patient is hostile to the hypnotist and wants to remain longer in the trance so as to "even things up".

(b) the patient "enjoys" being in the relaxed trance state and does not care, for the time being, to return to his "troubled" life situation.

The effective handling of such resistance and hostility should be part of the training of any hypnotherapist.

Neither amnesia nor the "deep state of hypnosis" is necessary for therapeutic success since in many cases "cures" can be achieved with suggestion in the "light" stages of hypnosis. It also is not necessary for the patient to "talk" while in the trance state. Excellent results can be obtained without "probing" for psychological contents. The hypnotist only "sets the stage"; it is the patient who induces the "trance" by doing what is expected of him.

As in every therapeutic procedure, the patient must

not only cooperate with the doctor, but he must unconsciously wish to get well, if excellent results are to be obtained.

Illness always is an emotional, uniquely personal affair, as well as a mechanical, physiological process. The sick patient is anxiously seeking for someone to take care of him who will relieve his distress and, therefore, endows the physician with the power to heal. Waking suggestion, placebo, and hypnosis all utilize the patient's faith in the doctor, and belong in the armamentarium of every practicing physician.

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Sun Can Damage the Eye

Smoked glass or dark glasses cannot protect the eye from the direct rays of the sun. "There is unfortunately a widespread misunderstanding that dark glasses are sufficient to protect the eye when one looks directly at the sun," according to Dr. William W. Bolton, associate director, Department of Health Education, American Medical Association.

Writing in the July issue of Today's Health, published by the A.M.A., Dr. Bolton said after each eclipse of the sun "a certain number of persons are observed to have permanent damage of the retina, with loss of central vision, even after using smoked or dark glasses."

"Even when the sun is partially observed, its rays are still very intense. Dark glasses only screen against reflected glare that results as the sun's rays strike the earth."

Surgical Closure of Very Large Fistulas of the Bladder and Rectum Due to Radium Therapy

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A case is reported and the operation for correction of this distressing condition is described.

TISSUES irradiated by radium or x-rays may be very rigid as a result of fibrosis, and highly anemic owing to thrombosis of a large number of small blood vessels. This is especially true when the dose of rays administered has been too large. This may result in necrosis and the appearance of exceptionally large fistulas. Closure of the fistulas may usually be very difficult owing to the fibrosis and anemia of the surrounding tissues. Small fistulas may usually be closed by ordinary methods. When the fistulas are large, there will always be tension on the sutures following closure, so that suturing in more than one layer is out of the question. In that case, the fistula will not remain closed. Assuming that the chances of healing would be markedly increased if it should be possible to obtain pedicled flaps of non-irradiated tissue, the present author developed a surgical procedure, the use of which may result in complete anatomical repair as well as complete restoration of function, provided the mechanism of closure of the bladder and urethra is unimpaired. Even in the case of small fistulas due to radium, it may be advisable to use tissues in suturing not damaged by radiation. When the fistula is localized at the upper end of the vagina, the wall of the rectum may be used for this purpose after the wall of the vagina has been dissected out extensively.

This procedure, referred to in the literature as partial colpocleisis, is very useful in the surgical treatment of fistulas localized at the upper end of the vagina, even when these fistulas have not been caused by irradiation. If the fistula has appeared at a lower level, pedicled musculo-adipose flaps cut

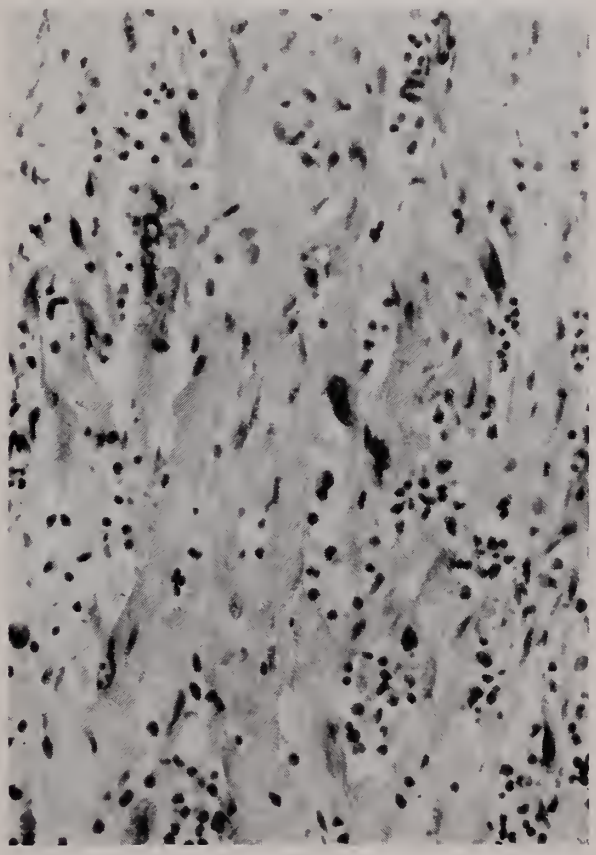

Fig. 1. Fibrosis of the connective tissue due to radium treatment.

from one or both labia majora may be employed (Martius procedure). For the technique, which is very simple, the reader is referred to Martius' textbook "Die gynäkologischen Operationen". In the event of large fistulas of the bladder and rectum due

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to radium therapy, the rectal mucosa will be broadly bounded by the mucosa of the bladder. The combined fistulas may be the size of a palm of the hand in that case and they will not infrequently prolapse from the vulva. These fistulas are usually regarded as incurable. In that event, the consensus is that a preternatural anus should be created and a total exenteration has to be performed. A patient with extensive fistulas of this type was treated by the present author for the first time in 1950. The following personal technique was developed:

Fig. 2. Higher magnification of figure one.

A preternatural anus is created in the transverse colon about three weeks prior to operation. If the anus were to be made in the sigmoid, it would not be possible to mobilize this portion of the intestine to a sufficient extent to be able to use it in closing the fistula.

Surgical technique: The bladder and rectum are separated through the vagina. This is effected by long, sharp-pointed scissors. Experience has shown that the bladder and rectum are separated more readily through the vagina than they are through the abdomen. The peritoneum of the sigmoid passes imperceptibly to the bladder. Accordingly, a boundary between these organs is not detectable from the peritoneal cavity. The boundary between the mucosa of the bladder and that of the rectum is plainly perceptible from the vagina. It is directed transversely in every case. When the patient has been placed in an exaggerated lithotomy position and bilateral Schuchardt incisions have been made, the view will be as good, if not better, than it is in abdominal operations. The bladder and rectum having been separated, the areas of necrosis in the wall of the vagina are removed and the bladder and wall of the

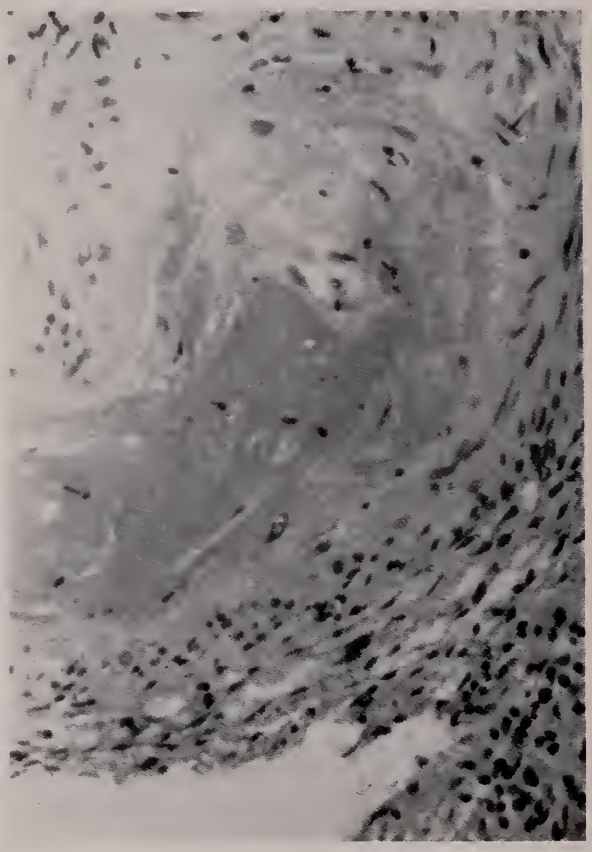

Fig. 3. Thrombosis in an artery.

rectum about the fistulas are dissected out to the greatest possible extent. Care should be taken not to injure the ureters during mobilization. The ureters will be entirely immobile, as the surrounding tissues are very rigid. In the case of large fistulas, the openings of the ureters will be plainly perceptible from the vagina. Apparently, the tissues are more resistant to the necrotizing effect of the rays in this region. Intubation of the ureters for the purpose of preventing them from being cut was found to be of little if any use. The catheters cannot be felt owing to the very hard surrounding tissues. At this stage of the operation it is not yet necessary to dis-

sect out the bladder and rectum to any large extent. This is much more practicable following the abdominal stage of the operation.

When the bladder and rectum have been separated, a pedicled flap is cut from the omentum; the end of the omentum usually can be drawn far beyond the vulva. To prevent ileus, the pedicled flap of omentum is sutured to the peritoneum of the anterior abdominal wall, a number of catgut sutures being used for the purpose. In addition, the mobility of the bladder fundus is increased by transverse severance of the peritoneum between the bladder and the anterior abdominal wall and blunt detachment of the anterior bladder wall from the pubic bone and symphysis pubis. The sigmoid is mobilized by longitudinal severance of the peritoneum on the left and right sides of the mesosigmoid. Care should be taken to avoid injuring the superior hemorrhoidal artery and vein in dissecting out the sigmoid.

When the abdominal wall has been closed, the patient is again placed in the exaggerated lithotomy position. The bladder and wall of the rectum having been mobilized to an even further extent, the fistulas are sutured in a single layer using longitudinal plain catgut sutures No. 2. Tension on the sutures will, however, continue to be present in every case. The tissues are too rigid to enable the application of another layer of sutures. The threads are not tied until all the sutures have been made. The making and tying of the sutures is started as far lateralward as possible. In doing so, special care should be taken to ensure that the openings of the ureters, which as stated previously, are usually situated approximately at the edge of the fistula, will come to lie within the lumen of the closed bladder. Therefore, it is advisable to insert catheters into the ureters prior to making sutures in the bladder wall. This may be readily done, as the openings of the ureters are plainly perceptible from the vagina. When the fistulas have been closed (though there will inevitably be tension on the sutures), a fold of the bladder fundus and of the anterior wall of the sigmoid is sutured over the closed fistulas. The omentum, to the end of which a thread has been fastened, is then drawn down. Two pedicled adipose flaps cut from the labia majora are also applied over the omental flap. The skin edges are then sutured together with silk or nylon threads over the entire area of the wound. It might possibly suffice to use only the fundus of the bladder, the anterior wall of the rectum and the pedicled omental flap without applying pedicled flaps from the labia majora. The vagina is assumed to remain deeper without these flaps. The present author never ventured to confine himself to using only the first three types of tissue. The tissues are particularly fibrotic and anemic in the region of fistulas due to irradiation. Accordingly, these fistulas will be much less likely to heal than others. Nor is it inconceivable that the ischemia might cause a further spread of the necrotic lesion and the appearance of another fistula on the distal side of the omental mass. The ureteral catheters were always removed within a few hours after operation. This was never found to be attended with drawbacks. Catheters are not infrequently obstructed

Fig. 4. Necrosis of the wall of a vessel.

by sediment when they are left in place beyond this period. Special care should be taken to ensure that the bladder remains empty for some time after operation. A self-retaining catheter is left in place for a period of four weeks. Following operation recently performed for fistula, Sindram kept the bladder empty by permanent suction drainage, maintaining a constant negative pressure of about 10 cm. of water. The catheter should not rest upon the suture closing the fistula. Therefore, Foley's catheter is considered unsuitable. Skene's glass catheter, se-

cured to the external orifice of the urethra with a few silk or nylon sutures, is much to be preferred. Antibiotics are administered for a few days pre- and postoperatively.

There was a very complicated case of fistula due to radium therapy in which the present author performed an operation a few months ago.

A 46 year old single nullipara was treated with radium for grade 2 carcinoma of the cervix in another hospital. She responded to treatment by running high temperatures. The woman also developed thrombosis in the right leg. She was treated with antibiotics and sintrom. Total abdominal hysterectomy was performed on August 30, 1958. The temperature rose to very high levels again during the postoperative period and the woman was seized with fits of cold shivers. A rectovaginal fistula appeared within four weeks after operation, followed by a vesicovaginal fistula some time later. The woman was seen by the present author on December 2, 1958. She was very ill. She was still running very high temperatures and had frequent cold shivers. Examination revealed the presence of an infiltration which had grown to more than the size of a fist, very firm to the touch, like carcinoma, and extending from the right wall of the pelvis to beyond the median line. Two fistulas, which allowed the tip of a finger to pass freely, were palpable high up in the rectum. The upper fistula was situated between the bladder and rectum, the lower between rectum and vagina. As it was considered possible that the infiltration might have been caused by inflammation, the woman was treated with large doses of antibiotics. In addition, a preternatural anus was created in the transverse colon. The woman appeared at the surgery well over four months after she had been examined by the present author. She was now looking very well. The mass in the right lower abdomen was found to have subsided to a marked extent. The vaginal wall, however, continued to be very hard to the touch, as is the case in fistulas due to radium therapy. The vesico-rectal fistula was localized at a very high level. It was decided to try and close the fistulas. The operation was performed on May 30, about seven months after the onset of the fistulas. 1,000,000 units of pencillin and one gram of streptomycin were administered during the last two days prior to operation. A bilateral Schuchardt incision was made with the pa-

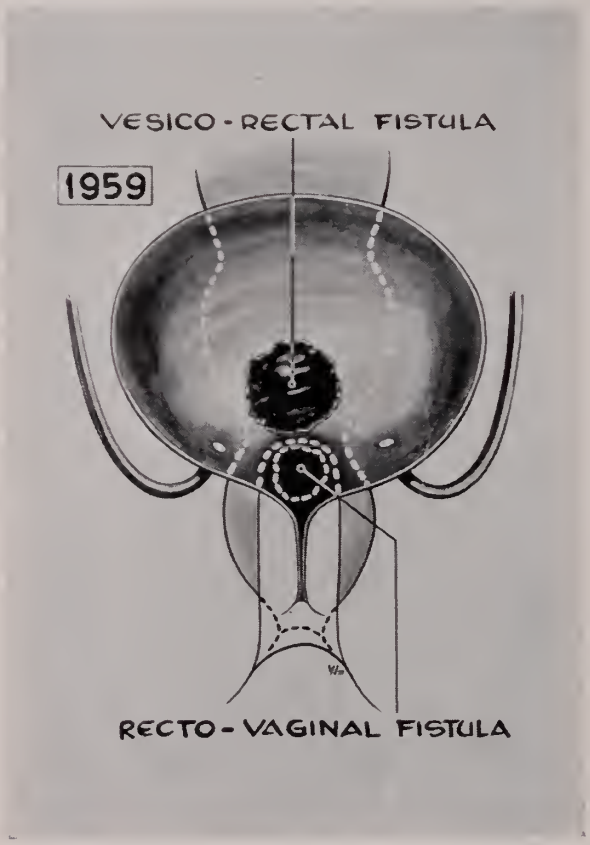

Fig. 5. Transverse section through bladder and vagina.

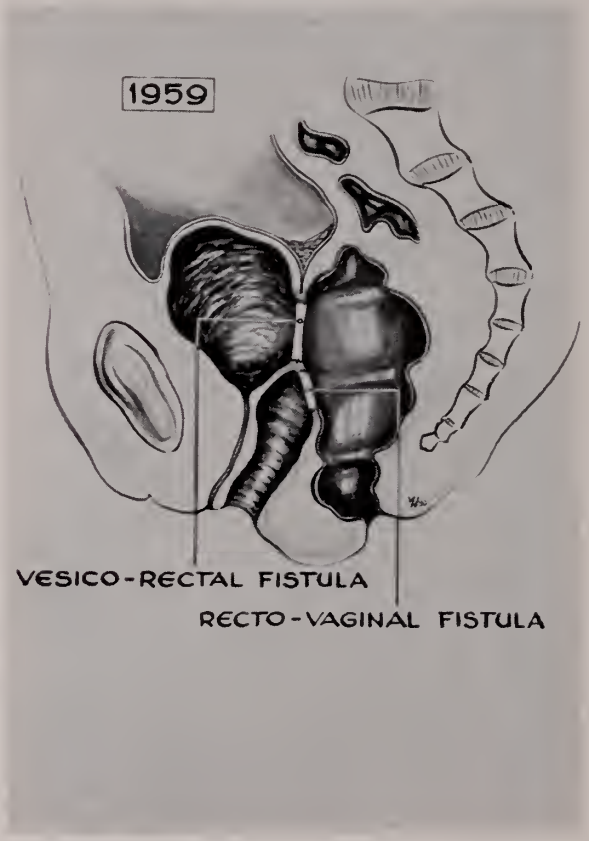

Fig. 6. Sagittal section through bladder, rectum and vagina.

tient in an exaggerated lithotomy position. The

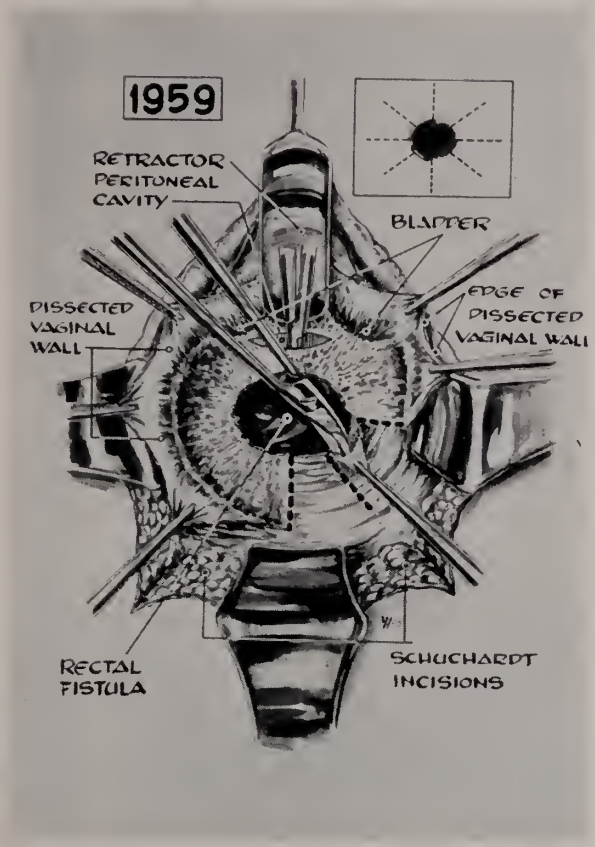

Fig. 7. The bladder has been pushed up by a retractor. The wall in which the fistula is situated is behind the retractor. Therefore the hole is not visible. Just below the retractor the peritoneum of the vesico-uterine pouch has been cut transversely. A forceps has been introduced between bladder and rectum to the peritoneal cavity. The rectum wall between the two fistulas has been cut. Thus there is only one fistula now. The vaginal wall is dissected to a great extent about the fistula. To the right at the bottom pieces of the vaginal wall are still being removed.
In the little square is shown the direction of some incisions about fistulas situated near the apex of the vagina.

portion of the vaginal wall affected by irradiation was dissected out. With great difficulty the bladder and rectum were separated from one another as far as within the free abdominal cavity. Catheters had been inserted into the ureters. Despite the fact that the catheters were not discernible by touch in the hard tissue, both ureters were nonetheless exposed for some distance. The fistulas were closed with longitudinal sutures of plain catgut.

The operation previously described was then performed. The patient was given 1,000,000 units of penicillin and one gram of streptomycin daily for a week after operation. The catheter was left in place for four weeks, though it was changed a few times during this period. Healing of the wound was uneventful. The preternatural anus was closed within about two months after closure of the fistulas. The patient is fully continent and does not show any symptoms whatever. Although the number of operations performed by this method has not been very large so far, it may probably be stated that at any rate most, if not all, fistulas of the bladder and rectum following radium therapy may be closed by the above procedure. Enduring continence will only be out of the question when the urethra is also involved in the process of necrosis. In that event, other methods will have to be adopted.

A chapter describing the same subject, with many illustrations, will shortly appear in "Progress In Gynecological Urology" published by Charles C. Thomas, Springfield, Illinois U.S.A. (Chief Editor Dr. Abdel Fattah Youssef).

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Cardiac Emergencies

Diagnosis and Treatment

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Regardless of how experienced one may be, it is well to review the steps to be taken when confronted with a cardiac emergency.

CARDIAC EMERGENCIES may be defined as those conditions which are hazardous to the patient and which require prompt recognition and immediate treatment. As it is beyond the scope of this paper to discuss all of these conditions, several of the more common ones have been selected for review and are listed below:

1. Arrhythmias that may produce a sudden rapid heart rate.
2. Adams Stokes attacks resulting from complete heart block.
3. Shock complicating acute myocardial infarction.
4. Cardiac arrest following acute myocardial infarction.
5. Acute cardiac tamponade.
6. Acute pulmonary edema.

The sudden development of a rapid heart rate may result in decreased cardiac output leading to shock or syncope. In individuals with underlying heart disease, heart failure or angina may also occur. It, therefore, seems important to include the clinical description and management of these arrhythmias in a discussion of cardiac emergencies.

The arrhythmias characterized by a sudden rapid heart rate can be divided into two groups, (1) those that are regular and (2) those that irregular. If the rhythm is regular the following must be considered.

1. Paroxysmal auricular tachycardia.
2. Paroxysmal ventricular tachycardia.
3. Auricular flutter with constant block.

If the rhythm is irregular it is probably one of the following:

1. Auricular fibrillation.
2. Auricular flutter with varying degrees of block.

PAROXYSMAL AURICULAR TACHYCARDIA

This arrhythmia is due to sudden initiation of an ectopic focus in the auricle with a rate which may be from 140-220 per minute but most commonly between 180-200 per minute; each auricular impulse is followed by a ventricular contraction. The rhythm is so perfectly regular that it can be counted from minute to minute with the same result. In addition, there is no variation in the intensity of the heart sounds from beat to beat. The onset and terminations of paroxysmal auricular tachycardia is abrupt and though attacks may last from several minutes to a week or more they usually subside after two to three hours. Paroxysmal auricular tachycardia is not the result of heart disease and occurs equally in individuals with normal and diseased heart. The attacks are often ushered in with a sensation of thumping of the heart following which the patient becomes aware of the rapid beating of his heart. Occasionally giddiness or syncope occur as a result of the abrupt decrease in cardiac output which may follow the development of a sudden rapid heart rate. These latter symptoms are more likely to appear in elderly individuals with an already compromised cerebral circulation. On rare occasions the clinical picture of shock may develop.

MANAGEMENT

There are several simple measures that should first be tried in the attempt to interrupt this rhythm. The administration of a sedative is often followed by a conversion to normal rhythm. The Valsalva maneuver or gagging with a tongue depressor or other convenient objects may also effect reversion. Carotid sinus massage, one side at a time, may be necessary to restore the rhythm to normal. Care must

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be exercised, however, because of the danger of interference with the cerebral circulation if the carotid artery is occluded.

If the above procedures are not successful digitalis should be administered. This drug can be given orally or if it appears urgent to obtain an effect quickly, then .8 mg. of Cedilanid should be administered intravenously followed by a similar amount in one hour. Frequently normal rhythm can be restored by gentle carotid sinus massage which was previously ineffective after approximately one-half of the digitalizing dose is given.

Many other drugs have been found to be useful in converting paroxysmal auricular tachycardia to normal. These include Neosynephrine 0.9 mgms. intravenously, Vasoxyl, 10-20 mgms. intravenously, Mecholyl 20 mgms. or Neostigmine 0.5-2 mgms. subcutaneously. We have had little occasion to use these drugs.

Quinidine and Pronestyl are also occasionally useful in controlling this rhythm. The method of their administration will be discussed under ventricular tachycardia.

If attacks of paroxysmal auricular tachycardia occur very infrequently then the trouble of taking any medication constantly is not worthwhile. If, however, the attacks are frequent and severe, then drugs should be employed to prevent them. Quinidine is probably the drug of choice and should be given in doses of 0.2 to 0.4 grams four times a day and in addition, an enteric-coated tablet at bedtime. It has been found on occasions that 0.4 mgms. twice daily in an enteric-coated capsule will successfully prevent the attacks. Digitalis is also effective as a preventive measure and may be given in the usual maintenance dose after digitalization is carried out. (Fig. 1)

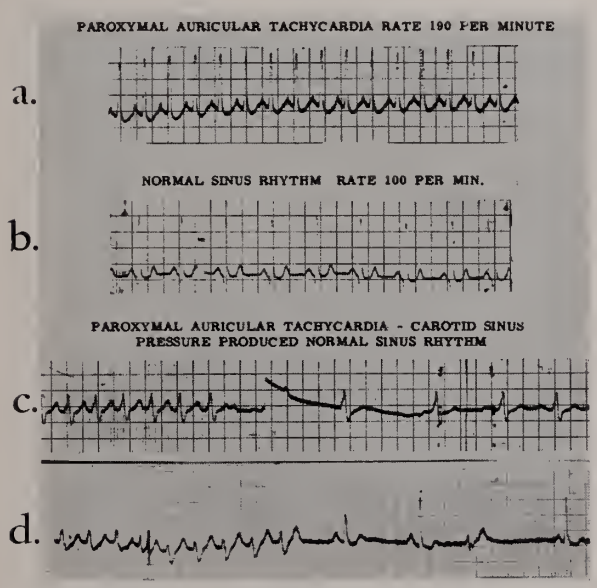


Figure 1

Electrocardiograms of patients with paroxysmal auricular tachycardia which reverted to normal sinus rhythm.

a. During paroxysmal auricular tachycardia.
b. Following reversion to normal sinus rhythm.
c. Paroxysmal auricular tachycardia reverting to normal sinus rhythm following carotid sinus massage.
d. Paroxysmal auricular tachycardia reverting to normal sinus rhythm following the Valsalva phenomenon.

PAROXYSMAL VENTRICULAR TACHYCARDIA

This a serious arrhythmia and except under rare circumstances is due to underlying heart disease. It is usually associated with coronary artery disease or rheumatic heart disease but may result from digitalis intoxication or occasionally from quinidine intoxication. It is due to the sudden initiation of a focus in the ventricle at a rate of 150 to 250 per minute. The rhythm is almost but not quite regular and often a variation in the intensity of the first heart sound can be detected by careful auscultation. Patients may suddenly developed giddiness, syncope or shock due to the same mechanisms described under paroxysmal auricular tachycardia. The attack may last a few minutes to two to three weeks. Treatment should be initiated promptly because of the danger of ventricular fibrillation and sudden death. Occasionally transient ventricular fibrillation occurs during a bout of ventricular tachycardia during which time there is no effective cardiac output, so that cerebral ischemia with syncope results.

Vagal stimulation by carotid sinus massage or gagging will not convert paroxysmal ventricular tachycardia to normal rhythm. The administration of Pronestyl in doses of 0.5 to 1.0 grams intramuscularly every one to two hours for four to six doses will usually control this arrhythemia. Quinidine is also effective in converting ventricular tachycardia to nomal rhythm and can be given orally in doses of 0.6 grams every two hours or intramuscularly in the same amounts. Occasionally when the patient is in shock and it appears imperative to control the arrhythmia at once quinidine gluconate, 0.6 grams diluted to 150-200 cc's of 5% glucose can be given by intravenous drip. Pronestyl may also be given intravenously, it should be diluted so that one gram is administered in 1-200 cc's of 5% glucose. These drugs should be given slowly, and the heart beat should be monitered with an oscilloscope or an electrocardiogram so that when the rhythm returns

to normal or if the duration of the QRS complex increases by 50%, the drug should be discontinued. It seems wise to have an external pacemaker available during the intravenous administration of Pronestyl or quinidine because of the danger of cardiac arrest.

If the blood pressure drops markedly with the onset of ventricular tachycardia the administration of Nor-Epinephrine or some other vasopressor drug will increase the blood pressure and the rhythm will sometimes revert to normal. Digitalis should only be given if needed for the treatment of heart failure since digitalis may produce ventricular irritability and increase the danger of ventricular fibrillation.

Once a normal rhythm has been restored a regular ration of Quinidine 0.4 grams or of Pronestyl 0.5 grams four times a day should be administered to prevent recurrences. (Fig. 2 and 3)

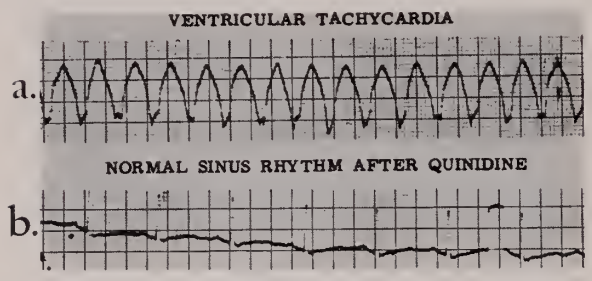


Figure 2

Paroxysmal Ventricular Tachycardia

a. Electrocardiogram of a patient who had recurrent episodes of paroxysmal ventricular tachycardia with transient syncope at their onset. This was controlled by the administration of Quinidine 0.6 grams every two hours for three doses.
b. Normal sinus rhythm after reversion.

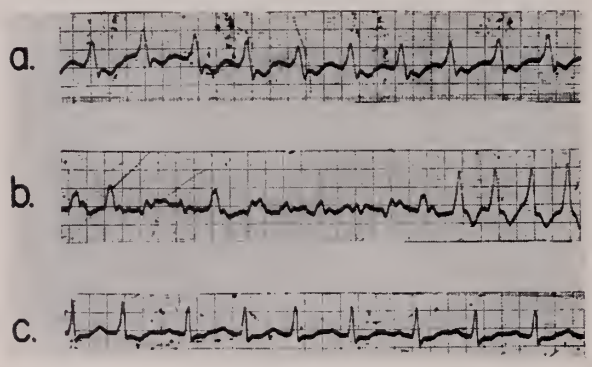


Figure 3

a. Electrocardiogram demonstrating ventricular tachycardia.
b. Complicated by ventricular fibrillation.
c. Syncope and convulsions developed during the episode of ventricular fibrillation. Quinidine 0.6 grams was given intramuscularly q 3 h for three doses and resulted in restoration to normal rhythm.

AURICULAR FLUTTER

This arrhythmia is due to the development of an ectopic focus in the auricle which produces impulses at a rate of 250 to 350 per minute. The ventricle, however, does not respond to each impulse and the ventricular rate depends on the number which traverse the AV node and cause ventricular excitation. If the auricular rate is 300 per minute and every other impulse is conducted by the AV node the ventricular rate will be 150 per minute. If every third or fourth impulse is conducted then the rate will be 100 or 75 per minute respectively. The rhythm is perfectly regular as long as the degree of AV block is constant but it becomes irregular when the block varies from 2:1 to 3:1 and back to 2:1, etc. Rarely there is no block and the ventricular rate is equal to the auricular rate.

Auricular flutter should be suspected when individuals with heart disease have a ventricular rate of 130 or more or when there are sudden changes in the heart rate.

Vagal stimulation by means of gentle massage of either carotid sinus results in an increase in the AV block so that the ventricular rate decreases. The rate returns in a jerky fashion to the original level after the stimulus is over.

In the management of auricular flutter the administration of digitalis will increase the AV block and reduce the ventricular rate. Occasionally auricular fibrillation will follow the administration of this drug.

Quinidine will often effect restoration to normal sinus rhythm after the rate has been reduced whether auricular fibrillation or flutter is present. Sometimes auricular flutter will persist for months or years and it has been our experience that patients with chronic auricular flutter require large maintenance doses of digitalis to keep the ventricular rate at a satisfactory level. (Fig. 4 and 5)

IRREGULAR RHYTHM

The most common cause of rapid irregular rhythm is auricular fibrillation. The auricular impulses are irregularly produced at a rate of 400 to 600 per minute and the auricles do not contract effectively but merely writhe and shiver in diastole. The AV node transmits 120 to 190 or occasionally more of these impulses per minute so that the ventricular rate is irregular and often very rapid. The radial pulse varies because of irregularity of ventricular filling and variation of stroke volume. About 95% of patients with auricular fibrillation will have heart disease or hyperthyroidism but it occasionally occurs in otherwise normal individuals.

Patients who suddenly develop auricular fibrillation may become giddy, develop syncope, chest pain

or have symptoms and signs of shock similar to those described under paroxysmal auricular tachycardia. They may develop acute pulmonary edema or may gradually go into heart failure.

It is important to reduce the heart rate as soon as possible by the administration of digitalis which increases the AV block and results in lowering of the ventricular rate. If the patient has shock, chest pain or heart failure, a rapidly acting digitalis product such as Cedilanid should be given intravenously. The usual dose is 0.8 mgms. and is repeated in two to four hours. If there is no urgency oral digitalization can be carried out over a 24 hour period. Normal sinus rhythm frequently follows intravenous Cedilanid administration to an individual with acute auricular fibrillation.

If the auricular fibrillation persists after the ventricular rate has returned to normal one can decide whether to attempt conversion to normal sinus rhythm with Quinidine. (Fig. 6)

Auricular flutter may also produce a rapid irregular heart rate as previously described. This occurs when there is varying degree of heart block and may be impossible to differentiate from auricular fibrillation by initial auscultation but after carotid sinus massage the rate may then become slow and perfectly regular whereas such a maneuver will cause a decrease in the rate in auricular fibrillation but the rhythm will remain irregular.

In general when one sees a patient with a rapid regular heart rate, if the rate is 160 or over, the rhythm regular and a history of similar episodes in the past can be obtained, one can be reasonably sure that the patient has paroxysmal auricular tachycardia. If the rate returns to normal after vagal

Carotid Sinus Massage

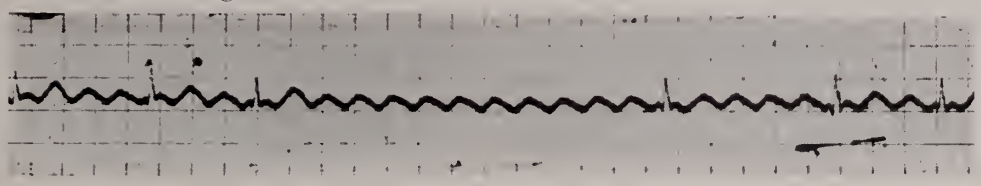


Figure 4
Auricular flutter showing the result of carotid sinus massage which caused an increase in the AV block.

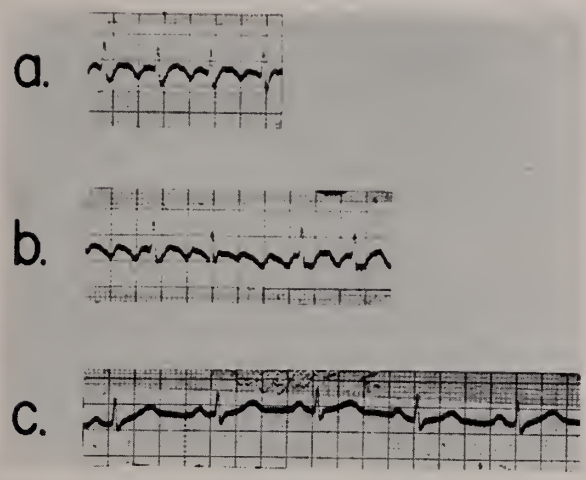


Figure 5
Auricular Flutter
a. 2:1 block before treatment.
b. 3:1 block and 4:1 block after the administration of digitalis.
c. Normal rhythm after Quinidine was given.

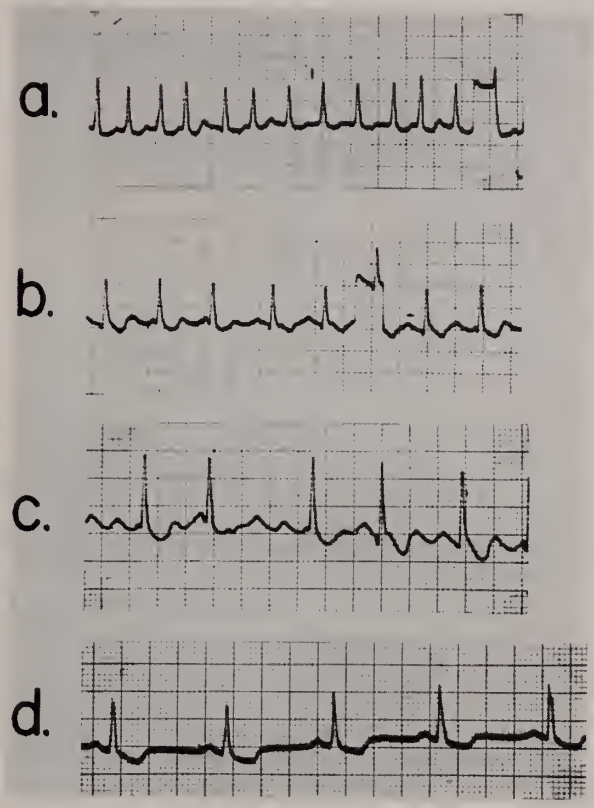


Figure 6
a. Auricular fibrillation before digitalis. Ventricular rate 250 per minute.
b. Auricular fibrillation after partial digitalization. (Cedilanid) Ventricular rate 170 per minute.
c. Auricular fibrillation after nearly complete digitalization. Ventricular rate 100 per minute. The auricular rate has also decreased and now resembles auricular flutter.
d. Normal sinus rhythm after complete digitalization.

stimulation and remains there the diagnosis is confirmed. If the rate slows and returns to the original level jerkily, one then suspects auricular flutter.

If the carotid sinus massage produces no effect then it is often impossible to differentiate between auricular and ventricular tachycardia though in auricular tachycardia the rhythm is more apt to be perfectly regular whereas in ventricular tachycardia slight variations in the rhythm and in the intensity of the heart beat can frequently be found. An electrocardiogram may be necessary, however, to confirm the diagnosis.

If an electrocardiogram is not available and one is not sure of the diagnosis and it appears imperative to interrupt the arrhythmia because of the condition of the patient, Quinidine is the drug of choice. This can be given in doses of 0.4 to 0.6 grams every two hours until the arrhythmia ceases or toxicity results. It seems wise not to give a total dose of more than 3 grams in this fashion, however.

If there is a rapid irregular rhythm auricular fibrillation is a most likely diagnosis and should be treated with digitalis. This is particularly true if heart failure is associated.

ADAMS STOKES ATTACKS RESULTING FROM COMPLETE HEART BLOCK

Complete heart block is due to the inability of the auricular impulses to traverse the AV node leaving ventricular contraction dependant on the initiation of an idioventricular focus in the ventricle. This pacemaker produces impulses at a rate of 30-40 per minute and results in a regular ventricular contraction. The auricles continue to contract independently and venous waves produced by these may occasionally be seen in the neck. Complete heart block usually results from arteriosclerotic or rheumatic heart disease but may occasionally be due to digitalis intoxication. When it follows acute myocardial infraction it may last several days and then revert back to normal rhythm spontaneously but that due to chronic disease is apt to persist.

As long as the ventricles contract at a rate of 30 to 40 per minute an adequate cardiac output is maintained and patients do not have severe symptoms. They may have abnormal fatigue or dyspnea on exertion but symptoms of cerebral insufficiency do not usually occur.

On occasions, however, patients with complete heart block will have syncope and convulsions due to a sudden decrease in the cardiac output, which may result from:

1. Marked slowing of the ventricular rate.
2. Cessation of contraction of the ventricles (asystole).
3. Ventricular tachycardia or ventricular fibrillation.

When any of these conditions occur there is an ineffectual cardiac output with resulting decrease in cerebral blood flow which is followed by the Adams Stokes attacks. In individuals who have such attacks repeatedly it may be possible to determine the underlying etiological mechanisms with the electrocardiogram. This is important since if the attacks are due to marked bradycardia or to cardiac arrest then Ephedrine, Epinephrine or Isuprel can be effectively used to combat them. Ephedrine is probably the drug of choice and is given in doses of 25 mgms. every six hours to keep the ventricular pacemaker excited so that marked bradycardia or asystole are avoided. Epinephrine can be given intramuscularly in doses of 1 to 2 mgms. every six to eight hours also. Isuprel can be used 1 mgms. every two hours sublinqually but the necessity of such frequent administration makes this inconvenient.

If ventricular fibrillation is the cause of the attacks such drugs may precipitate rather than prevent them. It has been suggested, however, that Isuprel may cause a pacemaker to be excited higher in the ventricle and to interrupt or prevent ventricular fibrillation or ventricular tachycardia. This, as noted above, can be given in doses of 15 mgms. sublinqually every two to three hours. It can also be given subcutaneously 0.2 mgms. every one to six hours or slowly intravenously 1 mg. per 200 cc's of 5% glucose. It has also been reported that Atropine given intravenously in one to two mg. doses may prevent Adam Stokes attacks which results from ventricular fibrillation in patients who are subject to them.

Intravenous administration of a molar solution of sodium lactate has been reported to interrupt complete heart block and may also cause ventricular tachycardia or fibrillation to revert to normal rhythm. This is given intravenously or intracardiacally in the doses of 25 to 200 cc's followed by a slow I. V. drip.

An external cardiac pacemaker is sometimes lifesaving when asystole occurs. This may stimulate the ventricles to contract until the idioventricular pacemaker becomes active again.

Steroid hormones have been employed with the hope of reducing an inflammatory reaction around the AV node and may result in the reappearance of normal AV conduction. They have been employed in patients who have developed acute heart block as

a complication of acute myocardial infarction but the results are difficult to evaluate.

In an acute attack such as those resulting from myocardial infarction occasionally a sharp blow on the precordium may initiate the heart beat after arrest has occurred. The injection of a needle in the ventricular muscle has also been found to be effective. The intravenous administration of Atropine in 1-2 mgm. doses will also occasionally interrupt complete heart block after acute myocardial infarction. (Fig. 7 and 8)

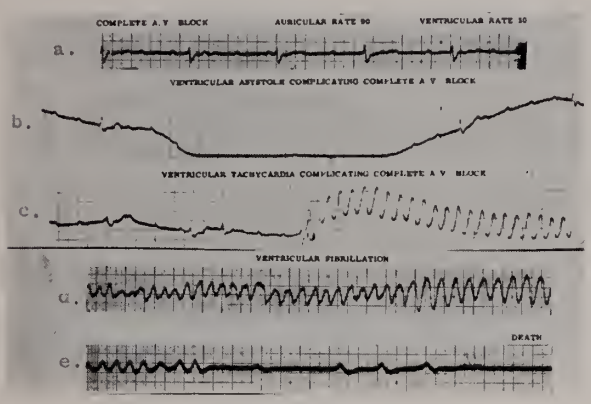


Figure 7

Complete Heart Block showing mechanisms predisposing to Adams Stokes Attacks.

a. Auricular rate 90 per minute. Ventricular rate 30 per minute.
b. Complete heart block showing bradycardia and which resulted in Adams Stokes attacks.
c. Complete heart block complicated by ventricular
d. Tachycardia and later ventricular fibrillation.
e. Ventricular fibrillation and standstill.

This patient had an acute myocardial infarction and despite all measures died.

SHOCK AS A COMPLICATION OF ACUTE MYOCARDIAL INFARCTION

The patient in shock following acute myocardial infarction usually has a low blood pressure. This is not always true, however, since such a patient prior to the infarct may have a blood pressure of 220/130, for example, and after the infarction a pressure of 120-80, concurrent with which there are clinical signs of shock. It is important to recognize the fact that shock is a clinical syndrome and not just a blood pressure reading.

Shock following acute myocardial infarction may occur as the result of a decrease in peripheral resistance or to a lack of adequate increase in peripheral resistance. Decrease in venous tone and pooling of the blood may also be a large factor. This results in reduced venous return to the heart and subsequent reduction of the cardiac output. This reflex type of shock usually occurs shortly after the infarction develops and is probably due to pain and anxiety as well as to other but less understood mechanisms. Pallor, dull sensorium, sweating, low blood pressure, feeble pulse and decreased urine output are associated. Bradycardia may occasionally be present but more often there is tachycardia.

The second major cause of shock after myocardial infarction is a primary decrease in cardiac output which may result from damage to the cardiac muscle, arrhythmias or tamponade. This type of shock may occur concurrently with reflex shock or may develop several hours or several days later. The clinical picture of the two types of shock is similar, though when there is primary decrease in cardiac output signs of heart failure such as accentuated pulmonic second sound, pulmonary rales, gallop rhythm and decreased heart sounds may be associated.

Cardiac tamponade may also produce shock. This results from slow seepage of the blood into the pericardium and may be relieved by pericardial tap. It may be due to anticoagulants which allows bleeding to occur as a complication of pericarditis. The patient then develops distended neck veins, pallor, decreased heart sounds, decrease in blood pressure and in particular, decrease in pulse pressure, pulsus paradoxus and an enlarged tender liver. When a pericardial rub persists or reappears after several days to several weeks one should be on the alert for tamponade. (Fig. 9)

THE MANAGEMENT OF SHOCK AS A RESULT OF MYOCARDIAL INFARCTION

Pain should be controlled and anxiety relieved promptly. This is preferably done with Morphine which can be given slowly intravenously in doses of 8 mgms. and repeated in 10-20 minutes if necessary. The intravenous route seems to be preferable in shock since absorption is unpredictable by other points. Neurogenic or reflex shock is often promptly relieved by this measure alone. If the heart rate is slow, intravenous Atropine in doses of 0.6 to 1.2 mgms. will occasionally result in dramatic improvement. It is important, however, not to produce tachycardia because of the decreased diastolic filling time which follows this.

Oxygen may be helpful but its effect is difficult to evaluate and if the administration of oxygen causes anxiety it should not be given.

Vasoconstrictors should be given if the above measures are not promptly effective. Several have been used but in our experience Aramine subcutaneously, intramuscularly or intravenously or Nor-Epinephrine

intravenously have been the most effective.

Aramine can be given subcutaneously or intramuscularly while an intravenous infusion is in preparation. Aramine also has an advantage in that if it is accidently given subcutaneously it will not produce a slough.

The amount of vasoconstrictor necessary to maintain an adequate blood pressure varies considerably and must be individually determined. The optimal blood pressure is not arbitrary, but it is that blood pressure which is adequate to maintain coronary profusion with minimal increase in peripheral resistance. The clinical picture of the patient and the amount of urine flow are very helpful in determining whether the pressure is optimal. If there is a urine output of 40 cc. per hour or more then it can be assumed that there is adequate renal blood flow and presumably adequate coronary blood flow.

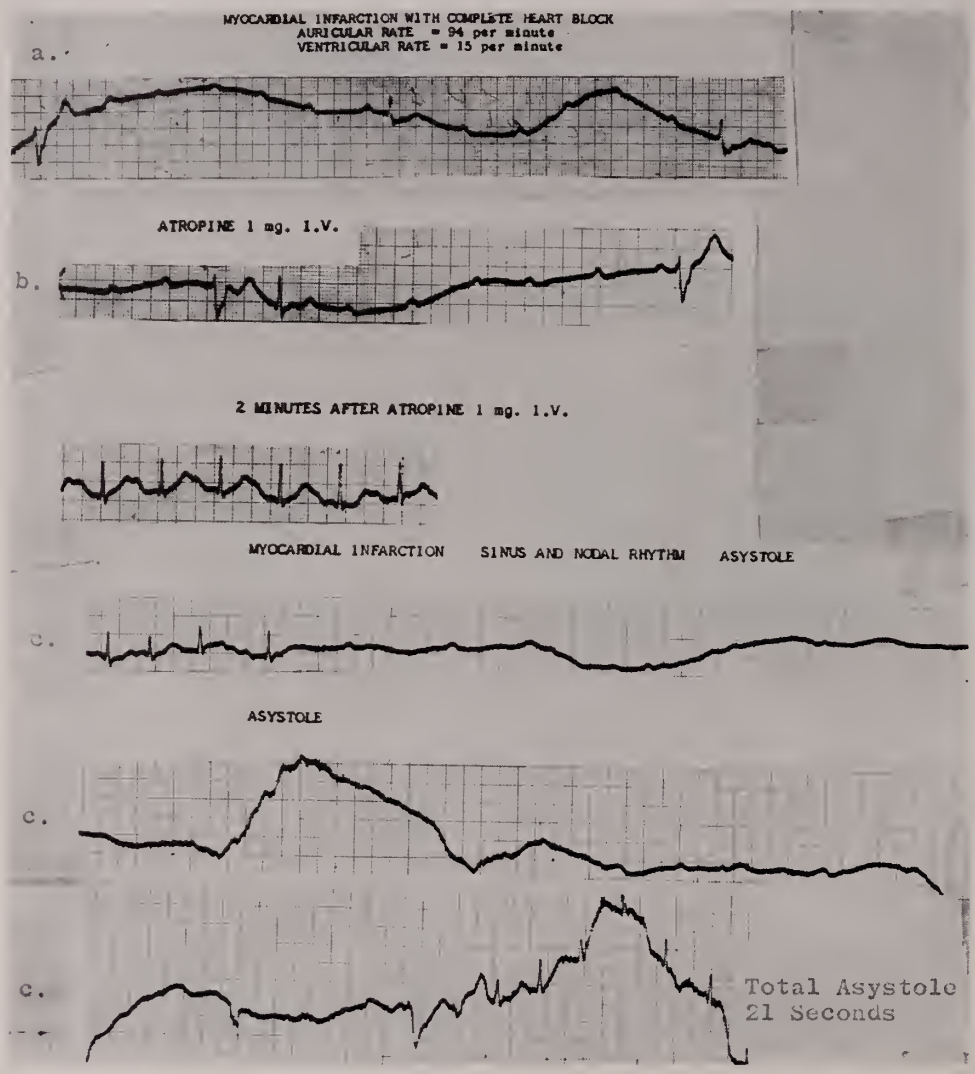


Figure 8

Complete Heart Block Complicating Acute Myocardial Infarction.

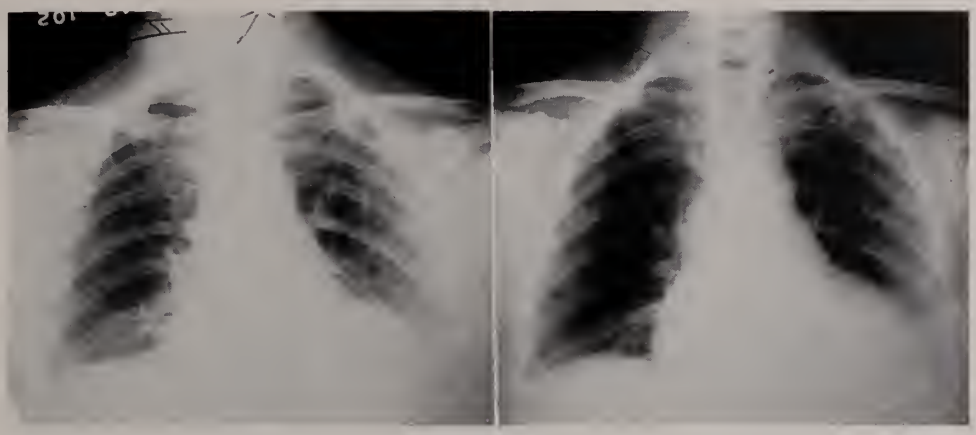
a. Auricular rate 94 per minute. Ventricular rate 15 per minute.

b. After the intravenous administration of 1 mgm. of Atropine.

c. Asystole which required stimulation with an external cardiac pacemaker.

This is an electrocardiogram of a 61 year old physician who suddenly developed syncope and fell at home. When seen there he was unconscious and lying on the floor. No heart beat was heard and no femoral pulse felt. He was struck sharply on the precordium and almost immediately the heart beat returned at a rate of 10 per minute. He became conscious, an ambulance was called and he was hospitalized. Atropine was given intravenously and normal rhythm occurred. He was given Steroids intramuscularly also. The heart block recurred and asystole developed approximately ten times during the next four days. A cardiac pacemaker was used to restore the heart beat. The rhythm was constantly monitored with an oscilloscope and a physician was in attendance constantly. He made a complete recovery and now works 8-12 hours a day without symptoms.

Arrythmias such as auricular fibrillation, ventricular tachycardia, auricular tachycardia and auricular flutter may precipitate shock and when they appear should be promptly controlled.



A Figure 9 B

This shows the x-ray of a lady who developed chest pain and signs of pericardial tamponade three weeks after the onset of acute myocardial infarction. Pericardial tap was done and she recovered uneventfully.

a. Before pericardial tap.
b. After pericardial tap showing air in the pericardial sac which was injected after the tap was performed.

Heart block may also be accompanied by shock and when the heart rate is increased, either by interruption of the block or by increase in the rate of the idioventricular pacemaker the blood pressure will frequently return to normal and improvement follow.

When there are signs of acute heart failure associated with shock, digitalization should be carried out promptly and rapidly. Cedilanid is probably the safest drug to use. It is given in doses of .8 mgms. and repeated after 2-4 hours. About six hours after the last dose digitalization should be begun with more slower acting digitalis product and given in full doses over a 24-36 hour period.

Transfusions have not been used recently as much as previously since satisfactory vasoconstrictors have been available. They were probably helpful because the dilated vascular bed was filled and venous return to the heart improved causing an increase in cardiac output with elevation of blood pressure and better coronary profusion.

CARDIAC ARREST OCCURRING DURING ACUTE MYOCARDIAL INFARCTION

Sudden death may occur at any time after an acute myocardial infarction, though it is more likely in patients who have had severe pain, shock, or frequent ventricular ectopic beats. Though the terminal mechanism is either asystole or ventricular fibrillation, a recent report indicates that the former is more common than the latter. (Fig. 8 and 10)

If institution of a heart beat and ventilation is not begun in four minutes irreparable damage to the brain results. Therefore, any efforts to resuscitate the patient must be initiated promptly and effectively carried out.

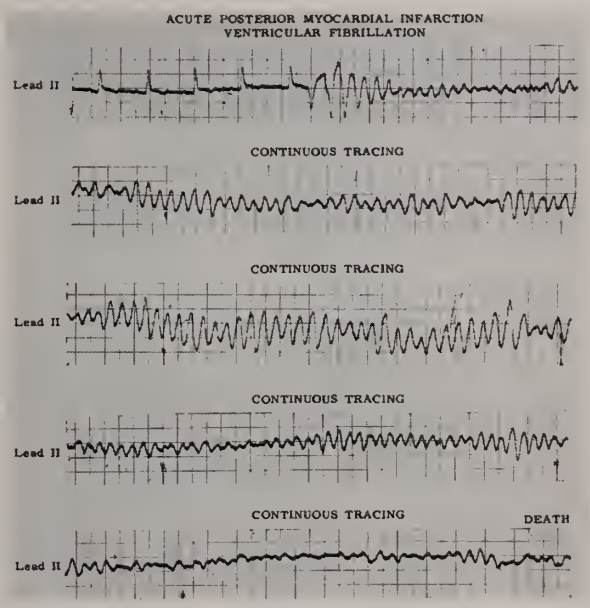


Figure 10

Electrocardiograms of patient who developed severe chest pain approximately one hour before and while the electrocardiogram was being taken ventricular fibrillation developed which resulted in death.

One must always temper enthusiasm with good judgment and realize that neither can every arrest be treated nor should be treated.

Under usual medical ward conditions, if cardiac arrest occurs and a physician is available, the following procedures should be immediately instituted.

1. A sharp blow should be struck on the precordium and an adequate airway established. Mouth to mouth breathing should be instituted.

2. Insert needle into ventricular muscle in an effort to stimulate it to contract. 0.8 mgms. of Atropine should be injected in the ventricular cavity because of the possibility that complete heart block is the cause of the arrest and if ventricular contraction occurs the block may be interrupted. Epinephrine has been recommended for years to stimulate the heart beat but this in the presence of hypoxia which occurs concurrently is more apt to precipitate ventricular fibrillation than to initiate an effective ventricular contraction and should not be used.

3. If an external pacemaker is available this should be applied and an effort made to initiate the beat. If asystole is the mechanism of arrest this may be effective and it will do no harm if ventricular fibrillation is present.

4. While these procedures are being carried out an infusion should be set up if possible for the administration of drugs intravenously.

All of the above procedures are directed at controlling asystole and not at the same time producing ventricular fibrillation. When this latter is the cause of cardiac arrest it can occasionally be interpreted with an external defibrillator as described by Zell. However, the presence of ventricular fibrillation must be established first, because of the danger of this procedure. Simpler measures such as the injection of Quinidine or Pronestyl are not recommended because of their inhibiting effect on the myocardium in the presence of hypoxia and should only be used if cardiac massage is carried out concurrently.

If cardiac arrest occurs at a time when competent personnel and adequate equipment are available after the simple measures have been found to be ineffective the chest should be opened and cardiac massage instituted. Defibrillation can be attempted if this is the cause of the arrest and a direct pacemaker can be applied if asystole is found.

It is not our purpose to recommend opening the chest routinely, particularly, if trained personnel and proper instruments are not at hand. We should also like to point out that one should be sure the patient needs such vigorous therapy before it is instituted and that he does not have simple vasodepressor syncope instead of cardiac arrest. The patient with the former will spontaneously recover and an enthusiastic physician might open a patient's chest unnecessarily with disastrous results.

It seems that patients with infarction, who are most apt to develop cardiac arrest should be under constant observation by a physician trained in the management of this condition. This entails the constant monitoring of the heart with either an oscilloscope or some other similar apparatus so that when a serious arrhythmia develops immediate therapy could be instituted. A pacemaker and a defibrillator should be available at the bedside.

A number of such patients might be placed in a room similar to a post-operative recovery room with physicians and nurses in constant attention. Sterile instruments necessary for opening of the chest and apparatus to establish ventilation should be at hand also. Then if an arrhythmia or arrest occurs the nature of this can be determined at once and proper treatment carried out. We do not believe that any apparatus should be set up which will automically either stimulate or defibrillate the heart because more harm than good might result if the monitoring apparatus gets out of order. We believe very strongly that a physician should be in attendance to institute necessary therapy.

It is obviously impossible to be with all patients with coronary occlusion constantly for their entire hospital stay but selected patients might be so observed. These would include the following:

1. Patients with severe pain and shock.
2. Patients with frequent ventricular ectopic beats.
3. Patients with heart block.
4. Patients who have had episodes of syncope following the attack.

CARDIAC TAMPONADE

This has been discussed as a complication of myocardial infarction but it may also result from infection such as acute non-specific pericarditis. Patients with this disease should be carefully observed because of the possibility that tamponade will result. This is manifested by the development of dyspnea, pallor, sweating, tachycardia, decrease in blood pressure, increase in venous pressure and increase in the size of the liver. Cyanosis may also be present. The diagnosis can usually be confirmed by fluoroscopy. Venous pressure determination may be done though this is not usually necessary since the neck veins are obviously distended indicating elevated venous pressure. If one encounters such a situation it is wise to remove the fluid from the pericardium immediately.

The pericardial tap can be done in several sites but it is our preference to insert the needle just within the cardiac dullness in the 5th interspace. (Fig. 11)

ACUTE PULMONARY EDEMA

This results from acute lift ventricular failure usually complicating hypertensive heart disease, aortic insufficiency or acute myocardial infarction.

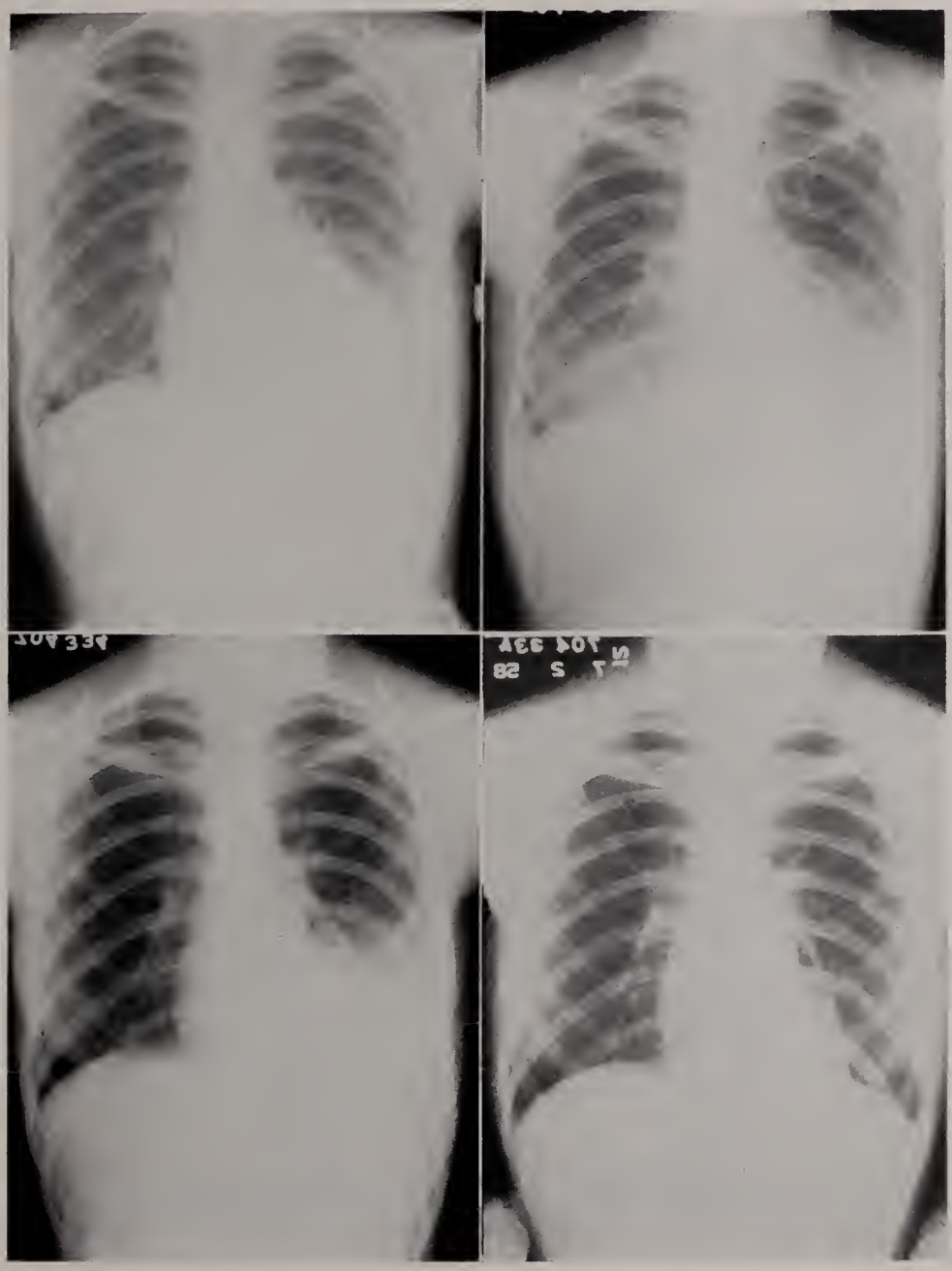


Figure 11

X-ray of a patient with acute pericarditis.

a. Before removal of fluid.
b. Following removal of fluid and instillation of air into the pericardium.
c. Same patient five days later.
d. Same patient thirteen days after tap.

This patient was a 21 year old woman, who came to the hospital with chest pain, dyspnea, as well as all of the other classical signs of pericardial tamponade. An x-ray and fluoroscopy were performed. The heart was enlarged and the cardiac pulsations were absent. Pericardial paracentesis was performed and 350 cc's of blood tinged fluid were removed after which air was injected and the pericardial sac outlined. She made an uneventful convalescence and 18 months later is perfectly well.

It may also result from a mechanical obstruction at the mitral valve due to mitral stenosis. Acute pulmonary edema may develop after undue exertion or may occur spontaneously. It frequently occurs during the night as a result of re-absorption of edema fluid which has formed during the day with increase in venous return. The sudden onset of auricular fibrillation may also precipitate pulmonary edema.

Classical acute pulmonary edema is characterized by the development of increasing dyspnea accompanied by cough, and frequently wheezing due to associated bronchospasm. These symptoms then become progressively more severe, the cough becomes productive of frothy and frequently blood stained sputum, cyanosis follows and the neck veins may become distended. These patients are very anxious, the heart rate is rapid, there is usually a gallop rhythm, an accentuated pulmonic second sound and there are bubbling rales throughout the chest.

Therapy should be immediately directed at reducing the blood flow to the left side of the heart. The upright position should be assumed preferably with the legs dangling. The patient may find that bending forward is more comfortable than any other position. Placing a chair in the bed in front of him so that he can rest his arms on this may be very helpful. Morphine should be given immediately.

Oxygen should be administered if available and the positive pressure mask is frequently helpful if the patient can cooperate. This allows oxygen to more effectively get across the alveolar membrane, decreases the venous return to the heart and also mechanically decreases the amount of fluid that traverses the capillary membrane.

The application of venous tourniquets so that the veins but not the arteries are occluded traps blood at the periphery and a bloodless phlebotomy is produced. It is wise to place the tourniquets on three extremities and to rotate them every 15 minutes to prevent thrombosis or ischemia. Sometimes an actual phlebotomy of 500 cc. is necessary and helpful. This is particularly true if acute pulmonary edema is a complication of chronic heart failure in which event the blood volume is apt to be markedly increased.

Patients who have not been digitalized should be given Cedilanid or some similar drug intravenously. The entire dose may be given at once or it may be divided and given at 2-3 hour intervals.

Ganglion blocking drugs have been reported to be effective in the management of acute pulmonary edema. The beneficial effect is due to pooling of blood in the veins with resulting decrease of venous return to the heart thus aiding in compensation. It reduces peripheral resistance also causing a lowering of blood pressure and decrease in the cardiac work. Hexamethonium can be given slowly intravenously and when a desired effect is obtained it should be discontinued. Usually about 30 mgms. are required to produce this effect.

Diuretics are not particularly effective except as a prophylactic measure but may be given during the acute phase so as to help mobilize the edema later.

The administration of Aminophylline either intravenously or by suppository has been found to be useful particularly if a marked degree of bronchospasm is present.

Acute pulmonary edema should be vigorously treated since proper measures are frequently lifesaving.

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Postphlebitic Subcutaneous Calcinosis

A Case Report and Review of the Literature

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This interesting condition should be diagnosed more often. The literature is reviewed and a case reported with autopsy findings included.

A CASE of multiple endocrinologic disorders associated with subcutaneous bone formation came to the attention of the senior author in 1955. An attempt was made to relate this subcutaneous ossification to myxedema and diabetes mellitus from which the patient also suffered. Such a relationship was not substantiated, and it was concluded that the remarkable soft tissue calcification of the legs was a complication of chronic venous insufficiency. Reports of this complication of thrombophlebitis have been very infrequent in the literature. Because of our opportunity to follow this case closely for 4 years, her subsequent demise and autopsy findings, it was felt that this case should be of particular interest.

CASE REPORT

Mrs. N. M., a 66-year old widowed white female, mountaineer, was first admitted to Sheltering Arms Hospital in March, 1955. Her chief complaint was claudication in her left leg of nine months duration. Her legs had frequently been edematous in the evenings for an undetermined number of years. Eight or ten years prior to admission the patient first complained that the bottoms of her feet "burned like fire" when walking. Her daughter reported that two or three years prior to admission she had first noted that the patient's lower legs were becoming quite hard. The patient had worked as a domestic until age 65 when the intermittent claudication became so pronounced that she was unable to walk more than 20 yards without pain.

Her past history was remarkable in that about 1936 both of her legs, for no apparent reason, suddenly became swollen, painful, and developed fissures which drained clear fluid. Her family physician apparently treated her for thrombophlebitis with hot soaks and bedrest and told her that she had diabetes. For the past fourteen years she had taken insulin daily, usually 20 to 40 units of long acting insulin, without symptoms of acidosis and only one episode of hypoglycemia. Both she and a sister had had large goiters from earliest recollection. On exertion the goiterous mass frequently gave the patient symptoms of tracheal obstruction. She had had some somnolence almost to the point of lethargy since the birth of her third child (a period of 20 to 25 years).

Her only medication, besides insulin, had been digitalis and potassium citrate which she had taken for fourteen months prior to admission for bronchitis and heart disease.

On first admission her temperature was 98°F., pulse 92 and irregular, respirations 16, and blood pressure 180-200/90-110 mm. She was a well developed, moderately obese white female with a yellowish tint to the skin and a facial expression best described as myxedematous with its mental dullness and sparse eyebrows. The eye grounds showed a grade III Keith-Wagner hypertensive retinopathy. The neck veins were distended if her head rested below a 45° angle. The thyroid was multinodular, firm and enlarged twice its usual size. There was no bruit. The heart rhythm was grossly irregular. The point of maximum intensity was 11 cm. to the left of the mid-sternal line, in the fifth intercostal space. There was no murmur or thrill present. The liver was palpated 6 cm. below the right costal margin and was firm. There were varicosities of both lower extremities involving both the greater and

Case reported April 1957 to Richmond Academy of Medicine.

From the Department of Medicine, Medical College of Virginia.

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lesser saphenous circulations. There was pitting edema of the feet and ankles. The subcutaneous tissue of the legs from the knees to the ankles was bony hard and in plaques up to 10 cm. in diameter. The overlying skin was shiny. The pedal pulses were not palpable. There was hyperesthesia of the soles of the feet and hypesthesia of the lower third of the legs bilaterally. The patient was somnolent and responses were slow.

Laboratory studies revealed the following: Hemoglobin 12.1 g/100 ml.; 4,400 white blood cells per cu. mm. with 70% polymorphonuclear leukocytes, 12% eosinophils, and 18% lymphocytes. The urine was alkaline in reaction, with a specific gravity of 1.014, and showed 2 plus albumin, a trace of sugar and no acetone. The urinary sediment contained 5-10 white blood cells per high power field. Blood chemistries showed a fasting blood sugar of 183 mg/100 ml., non-protein nitrogen of 24 mg/100 ml., and total blood cholesterol 230 mg/100 ml. The serum potassium was 4 mEq/L, sodium 134 mEq/L, chloride 86 mEq/L, and CO_2 combining power 32 mEq/L. Calcium values were 9.5, 10.3 and 9.6 mg/100 ml. at various times. The phosphorus values were 3.7, 3.9, and 3.3 mg/100 ml. Alkaline phosphatase was 2.8 and 2.4 Bessey-Lowry units on two occasions. Repeated urinary Sulkowitz tests were 2 plus while taking a general diet. Radioactive iodine uptake was 2% in 5 hours and 9.8% in 24 hours. PSP test showed 69% of the dye to be excreted in 2 hours. Urinary FSH values were positive for 96 and negative for 192 mouse units per 24 hours (normal for sex and age in our laboratory). Roentgenograms of the lower extremities (Fig. 1) showed marked, fine, reticulated calcifications present throughout the soft tissues of the lower legs but not involving the legs above the knees.

Biopsy of the subcutaneous tissue from one of the plaques on the lower leg showed multiple foci of infiltration by benign metastatic bone formation, not related to large blood vessels and containing red and fatty types of bone marrow (Fig. 2 and 3). Oscillometric readings of the legs were as follows: Mid thigh, right 4 units, left 6 units; mid calf right 5 units, left 1½ units; right ankle 3 units; left ½ units. The patient was digitalized, her diabetes was regulated on a 1200 calorie diet and 20 units of NPH insulin each morning. She was started on thyroid extract 15 mg daily and as soon as her biopsy site had granulated in (which took three weeks) she was discharged to be followed in the Outpatient Clinic of the Medical College of Virginia.

Her thyroid dosage was gradually raised to 60 mg. daily and she gradually lost her somnolence. She was readmitted to Sheltering Arms Hospital in July, 1955, with bronchitis and cough, October, 1955, with cough and fecal impaction, August, 1958, with digitalis intoxication. On each admission she responded well to therapy. She was admitted to the Medical College of Virginia Hospital in November, 1958, with pneumonitis. The x-ray picture in her lower legs remained unchanged and her claudication had improved only slightly during this time.

On December 3, 1958, she was readmitted to Sheltering Arms Hospital with dry gangrene of the right foot and lower leg. Her diabetes was under good control and on December 14, 1958, she was transferred to the Medical College where a right

Fig. 1. Note the fine, diffuse soft tissue calcifications.

mid thigh amputation was done under general anesthesia. Her postoperative course was fairly uneventful until she developed several furuncles four or five days postoperatively which were drained, but her condition deteriorated very rapidly and she expired December 23, 1958.

Autopsy showed a necrotic stump of the right thigh and multiple furuncles of the back and chest from which were cultured Staphylococcus aureus, coagulase positive. There was congestion of the lungs, liver and spleen with bilateral hydrothorax and hydropericardium (40 cc). A typical colloid

goiter, moderate pulmonary emphysema, generalized arteriosclerosis and leiomyomata of the uterus were also noted. The parathyroid glands were grossly and microscopically normal. The pancreas revealed a marked lobular atrophy without appreciable fibrosis. The lateral aspect of the left lower extremity, from the knee to the ankle, was exposed and the subcutaneous tissue and muscles were examined. The subcutaneous fat pad of the leg had a brittle feel and when cut with the knife offered considerable resistance and gave a scratching sound. When examined more closely there were many lobules of fat surrounded by firm cartilaginous septa. This apparent calcification was strictly limited to the fat pad and in no place were the muscles or other underlying tissue involved. The process did not extend above the knee. Microscopic sections from this area revealed an atrophy of the epidermis and dermis with slight hyperkeratosis. There was a loss of collagen tissue within the dermis. The subcutaneous fat tissue had multiple areas of fibrosis with deposits of amorphous, faintly basophilic staining material and fibrous tissue. Within these areas calcium was seen to be deposited and from the areas of calcium deposit, transition into bone was seen. In some areas foreign body giant cells were also noted.

Figs. 2 & 3. Low power and high power microphotographs show dark calcification and yellow marrow in the subcutaneous tissue.

COMMENT

Calcification of the soft tissues of the body may occur under a variety of circumstances. McClean[1] in 1955 attempted a classification of the calcinoses according to etiology:

I. Dystrophic Calcification—or calcification related to tissue injury

A. Calcinosis due to known agents

1. Mechanical or physical trauma
2. New growths
3. Parasitic infestation
4. Foreign body
5. Circulatory disturbances
6. Infectious processes
7. Congenital defects

B. Metabolic Calcinosis—due to widespread injury due to unknown agents

1. Scleroderma with or without Raynaud's syndrome
2. Dermatomyositis
3. Lupus erythematosis
4. Acrodermatitis atrophicans chronica
5. Rheumatoid arthritis
6. Mixed collagen disease

7. Associated with disease unrecognized as other than the above

II. Metastatic Calcifications

A. Hyperparathyroidism

B. Renal insufficiency

C. Vitamin D intoxication

D. Prolonged peptic ulcer diet or alkali and milk

E. Destructive bone disease

1. Metastatic carcinoma
2. Osteomyelitis
3. Leukemia
4. Multiple myeloma
5. Paget's disease of bone

Metastatic calcifications are associated with abnormalities in systemic calcium and phosphorus metabolism. Deposits are frequently seen in the lungs and kidneys but may occur in the skin and subcutaneous tissues. Dr. Fuller Albright[2] reviewed this case summary and x-ray films and felt that it was very similar to one of his own cases with calcifications secondary to prolonged vitamin D intake. History in this case eliminated this possibility[3] as well as that of prolonged alkali diet. The autopsy findings, the repeatedly normal calcium, phosphorus and alkaline phosphatase studies along with a lack of generalized bone disease on x-ray are incompatible with the other categories of metastatic calcification, i.e., hyperparathyroidism[4], and renal[5] insufficiency, and with destructive bone disease.[6]

Our attention must then be directed to the dystrophic calcifications or those which may be related to tissue injury. The possibility of calcinosis associated with a generalized collagen vascular disease is not borne out by clinical, laboratory or postmortem findings. There is no suggestion of an acute mechanical trauma as would be seen with a traumatic myositis ossificans[7], and in addition the process was limited to the subcutaneous tissues and did not involve deeper tissues. This case does not resemble the picture of other calcinoses such as calcinosis universalis, calcinosis circumscripta[8,9], tumoral calcinosis[10], Werner's syndrome[11], lipocalcinogranulomatosis[12], pseudohypoparathyroidism[13], or pseudo-pseudohypoparathyroidism[14].

Although this case seems closely related to the dystrophic forms of calcification mentioned above, the process actually was ossification rather than just deposition of calcium salts in injured tissues. It was felt that this was a case of subcutaneous calcification secondary to thrombophlebitis of the legs. One might assume that either metaplasia of connective tissue cells or undifferentiated cells in the local area were stimulated by calcium in the tissues to become osteoblasts.

In 1953 Lindner[15] described twenty cases of subcutaneous calcifications in the lower extremities in patients with chronic, latent or acute thrombophlebitis. These cases were found in a twelve-month period in one of the dermatology clinics in Berlin and were limited entirely to females, mostly in their sixties. Although he described only calcifications, one biopsy revealed also ossification. All of his cases had varicosities, ulcerations, and eczematous skin changes. The calcific plaques on x-ray could be demonstrated by phlebograms to be separated from the venous systems. It was Lindner's interpretation that phlebitis caused venous hypoxia which in turn caused local tissue acidosis. This again leads to regressive changes which favor the deposition of calcium in the tissues. Lindner called this entity, "postphlebitic subcutaneous calcinosis".

More recently Lippmann[16] has reported 23 cases. All of his cases except two were seen in postmenopausal women. The two exceptions were elderly males. He noted insufficiency of the deep or superficial venous systems or both in all of his cases. All were noted to have dependent edema and indurated areas of chronic cellulitis. Pathologically, his cases showed plaques of bone, ranging in size up to 10 cm. in diameter lying in the subcutaneous tissues of the lower extremities. Ossification was restricted to the subcutaneous tissues; the muscles, skin and fascia were not involved. Phleboliths have been noted in several cases but bear no anatomical relationship to the plaques of ossification.

SUMMARY

A case is reported with autopsy findings and review of the literature of a condition first reported by Lindner and called post-phlebitic subcutaneous calcinosis. Although this case is unusual in the extent of subcutaneous calcification, the condition is not rare. It occurs almost exclusively in post menopausal women who have suffered from chronic venous insufficiency of the lower extremities. The calcifications are always associated with the subcutaneous fatty tissue and limited to the legs.

We are indebted to Dr. M. Isabel Taliaferro for her advice and helpful criticism.

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Chickenpox Can Be Fatal in Adults

Chickenpox in adults is "a potentially fatal disease," a Texas physican has warned.

Writing in the July 2 Journal of the American Medical Association, Dr. Stewart A. Fish of Dallas said it has become evident that chickenpox, which is usually a mild childhood disease, may cause severe complications and death in adults.

Dr. Fish reported four fatal cases of chickenpox occurring during pregnancy. In three of the cases, the mothers were exposed to the disease by their children. In all four cases, the disease affected the lungs and other parts of the body. However, he said, "there is apparently no specific tendency or increased susceptibility to chickenpox during pregnancy."

In 66 cases of disseminated chickenpox reported since 1942, the sex distribution is fairly equal, and the association with pregnancy is probably coincidental.

The mortality among patients with disseminated chickenpox has been estimated to be between 10 and 30 per cent.

Since there is no drug therapy available which will cure disseminated chickenpox or modify its course once the lungs and other parts of the body are involved, Dr. Fish urged early hospitalization of patients with disseminated chickenpox.

Meclizine-Pyridoxine in the Treatment of Infant Colic

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This drug appears to be both safe and effective.

DISAGREEMENT exists about the causes of and treatment for infant colic. This complaint of early infancy may manifest itself in various ways, and a concise definition is presently lacking.[1] Though "colic" is usually identified by paroxysmal fussing, irritability, crying, spitting, and/or vomiting, the term should, perhaps, be reserved to describe only what appears to be recurrent attacks of abdominal pain in certain young infants.[2] Colicky babies are those whose symptoms indicate abdominal discomfort in different degrees.

Infant colic is probably a symptom complex rather than a precise entity, and its treatment varies somewhat with the point of view regarding its etiology. Those favoring the belief that the problem arises from congenital gastrointestinal hypertonicity[3,4] have used atropine and phenobarbital. Where allergy is suspected,[5] dietary control and conventional anti-allergic measures have been recommended. Others who attribute the difficulty to physiologic immaturity of the intestinal tract[6] use dietary control and peristaltic stimulators. A fourth theory holds that tense and anxious parenteral influences[7] are conducive to colic or some other feeding disorder. Treatment of the parent or parents would follow, in addition to symptomatic treatment for the baby.

Meclizine dihydrochloride, an antihistaminic drug known to possess central antiemetic and antispasmodic properties, is of specific value in at least three of these etiologic hypotheses, and contraindicated in none. Meclizine is used in the control of nausea and vomiting of pregnancy and in the treatment of the motion sensitivity syndrome. A high degree of success has been reported by clinicians who have used this compound combined with pyridoxine** in infant colic.[8-11]

As it is involved in the synthesis of highly unsaturated fatty acids, and plays a role in the metabolism of proteins and amino acids, pyridoxine is an extremely important dietary factor. Moloney[12] and Coursin[13] found that infants whose formula-feeding did not include vitamin B_6 became hyperirritable and convulsive; when pyridoxine was added to their formulae, they made a prompt recovery. It is possible that a subclinical pyridoxine deficiency may be an etiologic factor in infant colic. Pyridoxine therapy may contribute to the restoration and maintenance of physiologic chemical balance in the colicky infant.

The present paper is written to describe a study of meclizine-pyridoxine in infant colic and to report the results of this study.

MATERIALS AND METHODS OF THE STUDY

Ages of the 28 patients in this study ranged from 11 to 70 days. The shortest length of treatment was 5, and the longest was 90 days.

These patients were diagnosed as having colic. What appeared to be recurrent attacks of abdominal pain were accompanied (in varying degrees and combinations) by emesis, spitting, and general irritability, all part of the symptom-complex.

Fifteen patients in Group I were given drops containing meclizine-pyridoxine. The dosage was 0.5 to 1.0 cc. b.i.d. or t.i.d. determined by severity of symptoms and regulated according to individual responses. Thirteen patients in Group II were given a placebo preparation identical in appearance to the test drug. Patient selection was on a random basis.

All patients were carefully observed by the physician and the parents for responses and side reactions.

Bonadoxin Drops—Product of J. B. Roerig and Company, Div., Chas. Pfizer & Co., Inc.

**Each cc. of Bonadoxin Drops contains 8.33 mg. meclizine dihydrochloride, and 16.67 mg. pyridoxine hydrochloride.

GRADING AND RESULTS

"Excellent" means decided improvement in the patient's feeding and in control of symptoms. "Good" indicates improvement sufficient enough to be definitely noted by the parents. "Poor" results were those showing no change.

Of the 15 patients given the medication (Group I), 13 (86%) showed excellent improvement; 1 (7%), good; and 1 (7%), poor results. (Table I).

Of the 13 babies given the placebo preparation (Group II), 1 (8%) experienced excellent results; 2 (15%), good; and 10 (77%) poor results. Table II).

No toxic or allergic reactions to the medication were noted in the dosage used.

15 PATIENTS GIVEN BONADOXIN DROPS
(Summary of Group I)

TABLE I

Patient Number	Age of Patient (in days)	Dosage Schedule (cc. Bonadoxin Drops)	Duration of Treatment (in days)	Results		
				Exc.	Good	Poor
1	30	1.0 b.i.d.	5			
		1.0 t.i.d.		x		
2	60	1.0 b.i.d.	30	x		
3	60	1.0 b.i.d.	21	x		
4	67	1.0 t.i.d.		x		
7*	14	0.5 t.i.d.	21			x
8	21	1.0 t.i.d.	35	x		
9**	28	0.5 t.i.d.	90	x		
12	28	0.5 t.i.d.	28	x		
14	60	0.5 t.i.d.	21	x		
17	30	1.0 t.i.d.	30	x		
18	30	1.0 t.i.d.	30		x	
21	35	1.0 t.i.d.	21	x		
23	21	1.0 b.i.d.	42	x		
25***	35	1.0 t.i.d.	7	x		
27	49	1.0 t.i.d.	14	x		
15 patients			TOTALS =	13 (86%)	(7%)	1 (7%)

*Patient later shown to have milk allergy; dramatic improvement following non-milk diet.
**Feeding disorder recurred whenever patient was taken off medication.
***This patient showed no improvement whatever while on the placebo.

13 PATIENTS GIVEN PLACEBO PREPARATION
(Summary of Group II)

TABLE II

Patient Number	Age of Patient (in days)	Length of Treatment (in days)	Results		
			Exc.	Good	Poor
5	70	14			x
6	60	14		x	
10	11	30	x		
11	30	30		x	
13	21	21			x
15	30	7			x
16	35	21			x
19	14	14			x
20	21	14			x
22	35	14			x
24*	35	7			x
26	60	42			x
28	30	45			x
13 patients		TOTALS =	1 (8%)	2 (15%)	10 (77%)

*This patient later obtained excellent results when placed on Bonadoxin Drops.

COMMENT

The physician is largely dependent upon the evaluation by the mother of the response of the infant to a given medication and regimen. That 14 of the 15 infants given the meclizine-pyridoxine preparation were both reported to be and seen to be notably improved is particularly impressive, recognizing the widely varying human and chance factors involved. The fact that only three of the 13 infants given a placebo responded well while the remaining 10 experienced no improvement adds additional weight to the validity of the findings.

Yet other reflections of the accuracy of the favorable findings were obtained in three patients (Tables I and II) in whom this therapy finally produced excellent results. One of these infants did not respond until the dosage was increased from 1.0 cc. b.i.d. to 1.0 cc. t.i.d. In another baby, signs of the feeding disorder reappeared on the several occasions the mother ceased giving the medication; remission of symptoms occurred each time the medication was started again. The third patient experienced no improvement whatever while on the placebo, but when switched to the meclizine-pyridoxine, the infant immediately improved. These experiences pointed up the need for careful dosage adjustment and adherence to the dosage schedule. Since the drug proved itself uniformly safe, it is believed slight increase upward in dosages is warranted when poor results are at first obtained with lesser amounts.

A further comment of interest is that the one infant who totally failed to respond while taking the meclizine-pyridoxine preparation was soon shown to have a true milk allergy. When his formula was changed to a soybean preparation, the infant quickly ceased to have feeding difficulties.

Finally, the possibility that spontaneous remission of symptoms might explain away the high degree of success with meclizine-pyridoxine is greatly vitiated by the fact that babies on the placebo for from 21 to 45 days continued to show no improvement whatever.

SUMMARY AND CONCLUSIONS

Over-all excellent and good results were obtained in 14 of 15 infants (93%) given meclizine-pyridoxine drops for colic; where this therapy failed in 1 patient, a true milk allergy was later shown to exist. "Treatment" with a placebo preparation in a control group of 13 babies produced excellent to good results in three patients (23%) but failure in 10 (77%). The dosage of meclizine-pyridoxine was 0.5 to 1.0 cc. b.i.d. or t.i.d. carefully regulated by individual responses and needs. Side effects or toxic reactions were absent throughout.

Though based upon few case studies, the conclusion is that meclizine-pyridoxine is of considerable value in the treatment of infant colic, and that early use of this preparation should be considered in appropriate cases. The combination-product has shown itself both effective and safe in the dosages used with no toxic or allergic reactions having been observed.

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Radiological Aspects of Cholo-Enteric Fistulae

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Although this is a rare condition, it can be diagnosed preoperatively. Three cases are reported.

INTERNAL BILIARY FISTULAE are not common. In a series of 10,866 autopsies reported by Roth, only 43 were found. Kehr found 100 in 2,000 routine cholecystectomies and Borman and Rigler found 66 in 30,000 autopsies. The first preoperative diagnosis made by radiological methods was reported in 1915 and prior to 1941 only 90 cases had been diagnosed radiologically. Scott and co-workers reviewed the significance of gas and barium in the biliary tract and found 181 cases reported in the literature by 1951.

The most common cause of fistulous development is calculus perforation into the adjacent structures. Other causes which have been listed are duodenal ulcer with perforation and/or an associated periduodenitis, acute cholecystitis with empyema of the gallbladder and a few have been reported from carcinoma either of the gallbladder, pancreas or stomach though this is a rather rare aetiological factor. Fistulous communications have been reported between the biliary tract and lungs, pleura, pericardium, kidneys, ureter and even the uterus. The most common sites, however, are the duodenum and the colon and these two structures seem to vie for number one position. The next most common site is between the biliary system and the stomach. In addition to fistulous communications, barium entering the biliary system through an incompetent sphincter of Oddi has been reported though it is apparently rather difficult to demonstrate and to definitely exclude the presence of fistula. The more common causes which are conducive to such a situation include adhesions producing traction on the sphincter, tumors producing induration around the sphincter, thus keeping it patent, marked antiperistalsis of the duodenum, and patency of the sphincter of Oddi following passage of the common duct stone.

There is frequently a history of gallbladder disease of several years duration, however this is not essential and not infrequently a gallbladder history cannot be elicited. Diarrhea, weight loss and jaundice are also mentioned as common symptoms, particularly in the cholecystocolic fistulae. The diarrhea is presumably due to the laxative effect of bile in the colon and the jaundice incident to an ascending cholangitis and hepatitis. There may also be signs and symptoms of pancreatitis. There are no truly direct clinical symptoms which would suggest a fistula and it is incumbent upon the radiologist to be aware of this condition and direct his attention to this region whenever survey films are being studied and particularly if there are symptoms referable to the right upper quadrant.

The radiological findings may be classified as follows: 1) Positive roentgen criteria include demonstration of the fistulae either by the presence of gas in the biliary system or perhaps barium regurgitating into the ducts, either from a gastrointestinal series or a barium enema.

2) Corroborative findings consist of non-visualization of the gallbladder, as usually the gallbladder is contracted and has a thickened wall and does not function normally.

3) Mucous membrane changes have been described in the colon at the site of the fistulous opening in the case of cholo-enteric fistulae though this is difficult to demonstrate and evaluate.

Air may be demonstrated on a preliminary film of the abdomen or gallbladder area and it may outline the major biliary ducts though more frequently only small segments of the ductal system and perhaps smaller distal radicles may be the only segments visualized. Sharply outlined gas accumulation in the hepatic area should raise one's suspicion that a fistula is present, particularly if the normal gas-containing viscera can be identified as being in their usual position. When air can be demonstrated in the hepatic ducts it is almost pathognomonic of a fistula. In rare instances one may see gas within a gallbladder which results from emphysematous cholecystitis; however it is unusual for gas to be present in the biliary ducts in this condition. Judd and

Burden, in a study of bacterial flora of surgically removed gallbladders, found such organisms as E. coli and C. welchii in about 50 per cent of the specimens.

Within the past year three cases of cholo-enteric fistulae have been demonstrated preoperatively in the Department of Radiology at the Lewis-Gale Hospital, Roanoke, Virginia. In this series there is one choledochoduodenal, one cholecystoduodenal and one cholecystocolic fistula.

Case 1, Figures 1 and 2

Three weeks prior to admission to the hospital this middle-aged white man developed pain in the right upper quadrant which was followed by a mild degree of jaundice. In the past he had had mild episodes of right upper quadrant pain but no previous jaundice though there was a history of intolerance to fatty foods.

Figure 1 demonstrates a survey film of the right

Fig. 1

upper quadrant and demonstrates the presence of gas filling a portion of the common duct, suggesting the presence of a fistula. Figure 2 demonstrates barium filling the ductal system at the time of an upper gastro-intestinal study. It was noted at the fluoroscopic study that the proximal portion of the duct filled before the distal, indicating that the fistula apparently arose from the region of the duodenal bulb rather than in the region of the ampulla. At surgery it was the impression that there were mul-

Fig. 2

tiple small fistulous communications present though the exact site of the major defect could not be isolated. The gallbladder was small and fibrotic.

Case 2, Figure 3

This was an elderly white female who gave a history of nausea and vomiting and passage of copious tarry stools for one week prior to admission. The past history revealed that she had had indigestion and complained of nausea and vomiting but had had no jaundice and a definite gallbladder history could not be elicited.

Figure 3 demonstrates communication between

Fig. 3

the descending segments of the duodenum and the gallbladder through a fistulous communication. This apparently arose incident to periduodenitis and perhaps pericholecystitis and the possibility of there

being a small ulcer within the fistulous tract was considered. This patient refused surgery.

Case 3, Figure 4

A seventy-six year old white woman was admitted with the history of having had jaundice two years

Fig. 4

previously which was associated with fever and there was a history of dark urine. Ten days prior to the present admission she became ill with chills and fever and abdominal pain and passed clay-colored stools. On admission the patient demonstrated malaise and moderate icterus and appeared chronically ill and somewhat dehydrated. As part of her general work-up a barium enema was done and Figure 4 demonstrates a fistulous communication between the hepatic flexure and the gallbladder. At surgery there was found a small, contracted gallbladder which contained stones, and there was also a stone in the common duct.

SUMMARY AND CONCLUSIONS

Three cases of cholo-enteric fistulae have been briefly presented. All were diagnosed preoperatively and some of the roentgen changes have been demonstrated. Careful attention to the right upper quadrant in films of the abdomen, particularly in patients complaining of abdominal pain, may demonstrate the presence of gas in the biliary system.

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Dacryocystorhinostomy

A Simplified Technique

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A technique for this operation, which has been quite successful in the author's hands, is described.

IT IS COMMON KNOWLEDGE that the incidence of chronic dacryocystitis varies greatly in different areas of the world. There are places like Spain and Italy where the incidence is very great, while it is much rarer in the United States, Switzerland and Germany. Even in the United States there are areas, like Arizona, where the incidence is greater than, for example, here in Virginia, where most of us see only a rather limited number of cases every year. This difference in the incidence of this disease never has been satisfactorily explained and we accept the existence of some climatic factor in lieu of some better and more convincing explanation.

The author had the opportunity to spend several years of his life in Spain where an unusually large segment of the population is afflicted with dacryocystitis and therefore dacryocystorhinostomy was a procedure which was performed on several patients every week all year around with a much larger number of patients during the summer months, when many patients with serpiginous pneumococcic ulcers and chronic dacryocystitis had to have dacryocystorhinostomies done as a matter of emergency.

The simplified technique which we are presenting in this paper is not an original technique of the author but rather an outgrowth of a pooling of ideas during the performance of numerous dacryocystorhinostomies by Professor Palomar of Zaragoza, Spain, Dr. Lopez Alfaro and the author and adopting technical pointers which we considered very worthwhile from other surgeons with a large experience in this type of surgery.

Presented at the meeting of the Virginia Society of Ophthalmology and Otolaryngology, Williamsburg, April 28-30, 1960.

We feel rather emphatically that if the technical points which we will discuss below are followed, dacryocystorhinostomy becomes a very simple and short procedure in contradistinction to being a procedure which is generally disliked by ophthalmologists due to the fact that it is prolonged, not frequently performed, thought to be complicated and rather bloody.

Before the patient ever arrives in the Operating Room, together with some rather heavy premedication of Nembutal and Demerol, several plugs of cotton soaked in 4% cocaine and 1:1000 adrenaline chloride are placed in the affected nostril at five minute intervals and fastened to the cheek with a string. The last one of the three or four cotton plugs, we normally use, is left in place until a specific moment during the operation, which we will mention below.

Only local anesthesia is used, except in very small children, for two main reasons: In first place, infiltrations with 2% Procaine and 1:1000 adrenaline are perfectly adequate in rendering the procedure completely painless and second, because we have found a very marked reduction in the amount of bleeding which occurs during surgery when local procaine infiltrations are used as compared to any form of general anesthesia. We inject about 6 c.c. of 2% Procaine with adrenaline over the lacrimal sac area and over the affected side of the nose and about 2 c.c. of the same mixture are used at each, the upper and lower pole of the lacrimal sac, which can be reached by inserting a long dental needle, like the one used for a retrobulbar injection, just above and below the palpebral ligament to a depth of about 2-2.5 cm. No Hyaluronidase is added, as it is our feeling that while allowing a better identification of the tissues, it also produces more bleeding, something which we ought to avoid by all possible means.

A long, curved incision, about 5 cm. long is made over the lacrimal sac area, beginning about 5 mm. above the palpebral ligament and following along the lower orbital margin. We feel it is of the utmost

importance to make this incision deep, attempting, if at all possible to reach the bone with it. No benefit is derived from a superficial, slowly deepened incision, as there is no point in a dacryocystorhinostomy in identifying the different layers. In a simple sac extirpation the ligament has to be identified, as the sac lies immediately underneath it. In dacryocystorhinostomy however, the ligament does not constitute an important landmark, for, if the incision in this procedure is deep enough, the sac can be retracted quite adequately from its fossa in the bone.

After placing a Mueller retractor in the wound, pressure is made to stop the bleeding. At times, the incision will compromise the angular vein, in which case the bleeding will be more pronounced and some of the bleeding points may have to be picked up with hemostats. It is extremely rare that a ligature has to be used as it has been our experience that usually after a few minutes, when the stronger mastoid retractor is in place, all bleeding has stopped. Blunt dissection is carried out to leave the lacrimal sac well to the temporal side of the incision. Once the bone has been exposed sufficiently, the Mueller retractor is replaced by a mastoid retractor which will give us better exposure and also complete hemostasis. The next step is one of utmost importance, clean the bone of any and all remnants of periosteum. If the bone is clean at the time of trephining, the field will be very dry and the trephine will not slip easily; conversely, an inadequately cleaned bone leads to bleeding and difficulty in trephining.

After the bone toilette has been completed, the cotton plug with cocaine is removed from the nostril by the circulating nurse. Removal is important immediately prior to trephining for several reasons: first, the mucosa received the benefit of anesthesia and vasoconstriction until the time of trephining; second, it is important that the mucosa regain some of its normal color just prior to trephining so that it is more easily identified. This helps prevent accidental penetration of the mucosa and even continuing trephination to the septum, as has been described by some authors.

For the trephining itself, we use a dental drill with a routine hand piece to which a Gutzeit trephine has been fastened. A rectangle of bone is outlined and the trephine is carried down perpendicularly until the nasal mucosa has been reached at the upper left corner of the rectangle to be cut out. Once the mucosa has been reached, the trephine is inclined slightly as this will facilitate the further progress of the instrument. The mucosa can be identified easily by its grayish color and by the sudden decrease in the resistance offered to the trephine. Sometimes, the actual removal of the bone is done better with some type of bone forceps but in any case the rectangle of bone must be well outlined with the Gutzeit drill. We feel it is important to make a large enough bone opening, first to allow adequate drainage and second to facilitate subsequent maneuvers which could be difficult through a small opening. After the edges of the bony opening have been smoothed, the nasal mucosa is opened at about the union of the posterior third with the anterior two thirds and the posterior flap is excised. The flap of mucosa is then freed at its ends, in order to give it greater mobility. The same type of opening should then be made in the lacrimal sac. However, if desired and for greater security, just before making the incision in the lacrimal sac, a Bowman's probe can be introduced first into the lacrimal sac in order to make sure that the sac itself is opened and a proper anterior flap prepared.

Three or four sutures of Davis & Gecks 0000 black silk suture #3375, which has a most beautiful needle for this purpose are then used to suture the anterior flaps of the nasal mucosa and the lacrimal sac. Just prior to tying the sutures, the mastoid retractor is replaced by the more gentle Mueller retractor as at this stage we are no longer interested in having the tissues under tension.

A toilette of the wound is done, and the skin is closed with a single running suture of the Arruga type of 0000 black silk, with no knots being used. The lacrimal system is then irrigated and a small pressure dressing is applied underneath a regular eye patch.

Unless there is a great deal of swelling, all dressings come off in 24 hours or at the latest, after 48 hours. The patient is instructed not to blow his nose for five days. If the patient lives nearby he is discharged after three days, otherwise he is kept at the Hospital for five days, at which time the sutures are removed. The lacrimal system is irrigated daily until the sutures are removed and no further follow-up visits are usually needed.

COMPLICATIONS

In our series we have had two cases where the results have been unsatisfactory. One of these cases became obstructed again about six weeks following surgery and finally was reoperated about six months after the initial surgery. The very interesting finding was a very large collection of ethmoidal cells and an

unusually large sac remnant. We can only assume that not enough sac tissue was removed during the first operation and the remaining portion formed somewhat of a recess where lacrimal fluid could and would collect without draining into the more than adequate bony opening. During the second operation on this patient, the ethmoidal cells were removed, a fair amount of the remaining sac tissue was excised and the rest sutured again to the mucosa. We did not feel it necessary to enlarge the original bony opening in any way. The postoperative course has been normal and the drainage is now adequate.

In our second complication, the patient developed a large amount of swelling of his lower lid immediately following surgery, associated with an exacerbation of a chronic rhinitis for which he was treated successfully by a rhinologist. While the drainage was adequate when the lacrimal system was actively irrigated, there did not appear to be any tendency for the tears to drain passively into the new opening. After several attempts to obtain better drainage by active irrigation of the lacrimal system the patient failed to return and we do not know what his final outcome has been several months after his surgery.

SUMMARY

A detailed technique for dacryocystorhinostomy is presented, in which the main features are: adequate anesthesia of the nasal mucosa with cocaine; local anesthesia and a very deep cutaneous incision, without subsequent slow deepening of the incision; meticulous cleansing of the bone, which is trephined with a Gutzeit drill, mounted on a dental handpiece. After removal of the bone, an anterior flap of the mucosa is prepared, a similar flap of the lacrimal sac, while both posterior flaps are then excised. The anterior flaps are sutured and a single skin suture is used for closure.

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Mobile Operating Rooms

Mobile operating rooms that could go to the aid of heart attack victims are recommended by two Cleveland surgeons. Drs. Claude S. Beck and David S. Leighninger, writing in the September 10 Journal of the American Medical Association, suggested that mobile units be sent to victims whose hearts are revived by the open chest, manual massage technique.

The purpose of the mobile operating unit would be to restore the patient's heart to a normal rhythm and close the chest at the scene of the emergency.

Success is "more likely" if the operating room with trained personnel is moved to the victim instead of the victim being moved to the hospital. Artificial respiration, essential to the survival of the patient, may be interrupted while he is being transported to the hospital.

The two surgeons made the recommendation after discussing the incidence of death in "hearts too good to die." They said a two-year survey of 500 heart attack victims listed by the Cuyahoga County Coroner's office, Cleveland, showed that in 6 per cent of the cases there was no evidence of sufficient heart damage to cause death.

"These figures indicate the size of this problem," they said.

They explained that a good heart could fail when its supply of oxygen is cut off (anoxia) or when its oxygen becomes unequally distributed causing a convulsive beat (fibrillation). For example, anoxia can be caused by suffocation, choking or drowning and fibrillation can be caused by lightning striking the body.

When a structurally sound heart stops beating, they said, it may need only a "second chance" to cheat death. The cardiac massage technique is becoming increasingly successful in surmounting the temporary difficulty of the healthy heart, they said.

Dr. Beck is professor of cardiovascular surgery and Dr. Leighninger is senior instructor in surgery, cardiovascular section, Western Reserve University.

Correspondence . . . .

Use of Librium

To the Editor:

I am writing you in regard to the use of Librium. This is a new psychopharmaceutical which has been widely promoted in the last few months as a completely safe drug for acute anxiety states.

I have found several patients who have had quite a severe reaction to this drug which I believe should be made widely known.

I particularly wish to draw your attention to the concommitant hypotension that I have seen with this drug in most of the patients to whom I have administered it. I present the following four patients as examples.

(1) A 43 year old female with mild hyperthyroidism and a severe involutional agitated depression (of the manic-depressive type) who was sent to me for hypnotherapy. To help this patient cooperate while undergoing therapy on an interpersonal basis she was placed on a combination of Librium 10 mgm qid and Marplan 10 mgm tid. Within two weeks there was a marked change in her personality in that she became completely cooperative and was able to discuss her problems intelligently without showing signs of either her depression or her anxiety. Her initial blood pressure was 120/80. After four weeks therapy the BP was seen to be 100/50 and the marplan was reduced to 10 mgm daily. Four days later I was called to see her at home and found her lying in bed with a BP of 80/30 which on sitting up became 50/0. She was treated with medication to elevate the blood pressure and placed on complete bed rest in hospital and EKG showed a pattern of subendocardial ischemia. This patient was studied for her 17 OH-Ketosteroids and no abnormality found. Her EKG returned to normal in 24 hours and the serum transaminase was not elevated. No medication relieved her hypotension except ACTH 80U daily and after four weeks the recumbent BP was 110/80, the sitting 100/70 and the standing 90/30. She has been started on DOAC 2.5 Mgm sublingual bid.

(2) The second patient was a 28 year old female with an endogenous depression being treated by hypnotherapy who in the past had attempted suicide. She was on Marplan 10 mgm bid for the depression and then as she had severe atropine poisoning type reactions to all the phenothiazine tranquilizers she was placed on Librium 5 mgm qid. She had an excellent elevation of mood and became much more responsive to suggestive psychotherapy. Her initial BP was 130/90 and after the librium had been given for one week was 90/60 sitting and 80/40 standing.

(3) Another patient seen for treatment of a chronic anxiety associated with weight gain was completely unable to follow a diet and on Librium 10 mgm tid became completely cooperative and started to lose weight well. Her initial BP was 170/90 and after two weeks on librium was 90/50 sitting and standing. Reduction of dosage from 10-5 mgm librium tid gave equal therapeutic results with BP of 110/70.

(4) The fourth patient was a 49 year old male with a severe agitated depression of the endogenous type who was undergoing psychotherapy and whose agitation was relieved very well with Librium 10 mgm bid and had to be given Marplan 10 mgm tid for the depression. The Marplan was discontinued and the Librium maintained at the same dose. BP drop from 150/95—100/50.

In three out of four of the above patients the Librium was given in addition to a MonoAmine Oxidase (MAO) inhibitor and these compounds are known to have effects on the postural blood pressure. However in 25 other patients who have been on Marplan for varying intervals from four to 16 weeks I have not once encountered any postural hypotension. In 40 other patients on Librium alone I have encountered either no hypotension or only a moderate drop in the systolic blood pressure of up to 15 mms and in the diastolic of up to 5 mms.

In view of the increasing use of psychopharmaceuticals in chronically mentally ill patients and the increasing suggestions for use of the combination of a tranquilizer and a mood elevating drug such as a MOA inhibitor or Impramine, I would suggest that some drug other than Librium be combined with the mood elevator as in these few patients it was only when the two drugs were combined that there was any marked hypotensive effect.

Sincerely Yours,

Christopher M. G. Buttery, M.D.

Rocky Mount, Virginia

The Use of Tannic Acid in the Treatment of Dermatoses.

To the Editor:

The importance of the seven-day-periodicity of inflammatory disease is stressed in the 13th chapter of Leviticus, Numbers ch. 12, v. 14 and elsewhere in the Scriptures. The Hebrew phrase MAKOH SHEVA in Leviticus, ch. 26, v. 21, appears to point towards the degenerative and neoplastic conditions seen to develop following interruption of the seven-day-periodicity of inflammation by antibiotics, antihistamines or corticosteroids. While the immediate side effects of the newer corticosteroids appear to be less pronounced than those associated with earlier preparations, the fact remains that their use in the treatment of dermatoses is based on their anti-inflammatory action with all the delayed sequelae of this kind of treatment, as specified above, to be expected. It is therefore important to point out that while the immediate results obtained with corticosteroids are very impressive, and neither pemphygus vulgaris nor lupus erythematosus can at the present time be treated in a different way, nor can a candidate for the nomination in the presidential election with Addison's disease run his campaign without them. Their use in the treatment of both atopic and contact dermatoses, because of the constitutional character of these conditions, with their tendency to recur, does not appear to be advisable—more so because of the fact that these conditions usually respond favorably to older drugs which are less dangerous both in their immediate and delayed side effects than the antihistamines and the corticosteroids. The guest editorial published by Dr. John H. Lamb in the Southern Medical Journal (52(9):1153-1154 (Sept.) 1959) was very timely and appeared to confirm my opinion. The most important of the older drugs which can be used successfully in the treatment of dermatoses appears to be tannic acid which in the shape of the plants containing it has been used for this purpose since times immemorial with the latest paper on this subject published by Dr. P. S. Tennant in the Canadian Medical Association Journal (*31:* 414-415 (Oct.) 1934).

I have been using tannic acid successfully for the last 20 years in the following conditions: atopic dermatitis, contact dermatitis, neurodermatitis, insect bites, pruritus ani, pruritus vulvae, numulary ezcema, lichen chronicus simplex, the cutaneous manifestations of herpes simplex and herpes zoster. While some cases of psoriasis appear to respond to tannic acid treatment, other cases did not react at all. Cases of exudative diathesis in infants appeared to respond better to tannic acid treatment than to corticosteroids. Dramatic results were obtained in cases of eczema intertrigo and in "diaper rash". As a rule tannic acid was used by me in the shape of a powder in either moist or moistened dry lesions. Nutgall ointment gave good results in dry lesions. Because of the constitutional nature of most the conditions quoted, treatment with tannic acid did not prevent recurrences. Nevertheless, even in a case of chronic seborrheic eczema which had resisted treatment for 14 years the skin was seen by me to gradually clear up after several weeks of treatment with tannic acid and nutgall ointment.

Leo I. Hallay, M.D.

Fort Blackmore, Va.

Fluoride Toothpastes

So far there is no conclusive proof that fluoride toothpastes prevent tooth decay. At present, one can only speculate or theorize regarding the value of fluoride dentifrices in controlling decay, according to Francis A. Arnold, Jr., D.D.S., National Institute of Dental Research, Bethesda, Md.

"The results of clinical trials made so far are as controversial as are those obtained by the use of other dentifrices."

Dr. Arnold's remarks were in a report on the present status of dental research in the study of fluorides appearing in the April Archives of Industrial Health, published by the American Medical Association.

He made these other points:

—The use of fluoride compounds, which are applied by dentists, are of value in preventing decay, particularly in areas where fluoridation of public water supplies is not feasible.

—The use of fluoride supplements to the daily diet presents problems and requires daily supervision. Such supplements are most effective during formation of the teeth.

—More than 1,500 communities are fluoridating their water supplies. This method undoubtedly has as much scientific support for its safety and effectiveness as any other public health procedure.

Cancer Trends . . . .

SUSAN J. MELLETTE, M.D.

The Management of Disseminated Malignant Disease

One of the major recent trends in the management of advanced malignancy is subtle but significant. It involves a change in the approach of the physician to the patient with disseminated disease. The traditional concept of palliation implied measures which allowed the patient to live more comfortably with his disease but had little or no effect on the extent or rate of growth of the cancer. The narcotic prescription or the few doses of x-ray directed at painful bone metastases represented a sort of "passive palliation". In contrast, measures now available are aimed at improving the patient's condition by a direct attack on tumor cells or by altering the environment conducive to tumor growth. Such an approach might be termed "active palliation". In some cases, for various periods of time, a semantically more appropriate designation might even be disease control.

The variety of procedures or agents to modify the course of malignant disease is constantly increasing. Some of these, e.g. the sex hormones, are applicable only in certain specific types of disease. Others have a wider spectrum of activity; and types of malignancy once thought to be highly resistant to drug or radiation therapy, e.g., gastrointestinal cancers, have responded favorably in occasional instances.

The medical management of the patient with a metastatic cancer might include one or more of several general groups of agents: (1) Cytotoxic drugs, such as the alkylating agents: nitrogen mustard, ThioTEPA(R) or Myeleran(R). These materials are not specifically toxic for cancer cells but act, much like x-ray, in producing damage more readily in rapidly dividing cells. Obviously, these agents are more apt to be effective in malignant diseases susceptible to irradiation; but have an advantage in systemic disease and, under certain conditions may be useful when given in somewhat higher concentrations to a localized body area as by perfusion techniques. (2) Antimetabolites—of two major common types: those presumably affecting synthesis of purines and pyrimidines (the folic acid antagonists, amethopterin, Methotrexate(R)), and those presumably affecting incorporation of purines and pyrimidines into nucleic acid: 6-mercaptopurine, (Purinethol(R)). These drugs have found their major usefulness in the leukemias. Very recently, antibiotic-type drugs such as Actinomycin-D have been found to produce limited remissions in certain varieties of malignancy. The action of these agents is likely that of an antimetabolite.

The third major general group of agents used medically in control of advanced cancer includes the various hormones. Both types of sex hormones and various modifications thereof are among the most useful drugs known when used in susceptible cases. Anyone who has observed the frequently dramatic regression of carcinoma of the breast or prostate following appropriate hormone therapy is well aware that not all disseminated cancer pursues a relentless and unremitting downhill course. The extirpative procedures: castration, hypophysectomy, or adrenalectomy, may be considered as hormonal modifications of tumor environment. These, sometimes with additional as well as replacement hormone administration where applicable, often result in significant periods of useful, comfortable life for the patient. The adrenal corticoids have had considerable usefulness in modifying the leukemias, the lymphomas, and occasionally, other types of disseminated malignancy. Thyroid hormone is sometimes useful, particularly in an attempt to suppress TSH in thyroid malignancy or as an adjunct to other hormones in breast carcinoma.

A few types of malignant disease are susceptible to modification by more than one of the general groups of therapies just mentioned. Fortunately, this is true of one of the more common varieties: carcinoma of the breast. The post-menopausal patient who has experienced a year or more of remission of disease during estrogenic therapy may achieve in some cases a similar period of useful symptom-free existence from one of the androgens—even from one of the orally administered preparations such as the newer fluoxymesterone. Another patient, usually in the premenopausal group, who has benefited from oophorec-

MELLETTE, SUSAN J., M.D., *Assistant Research Professor of Medicine, Division of Cancer Studies and Tumor Clinic, Medical College of Virginia, Richmond.*

tomy may have a second significant period of remission following hypophysectomy.

A relatively small, but significant, number of patients with breast cancer may remain in quite satisfactory condition for considerable periods of time during maintenance therapy with an alkylating agent, e.g. ThioTEPA. Drugs of this type are also particularly useful in effusions secondary to breast as well as other types of carcinoma and may be used in conjunction with other forms of treatment in certain situations.

The patient with breast carcinoma is not yet at the end of the possible regimes which may be beneficial in some cases: prolonged low dose adrenalcorticoid therapy, with or without thyroid hormone, may achieve not only the euphoria and subjective improvement sometimes associated with such treatment, but an objective remission, sometimes for considerable periods of time. In a patient not previously subjected to hypophysectomy or adrenalectomy, it is likely that this result can be attributed to suppression of adrenal estrogens or, perhaps, pituitary hormones such as mammotrophin which might be contributing to the growth of the malignancy.

The one major malignant disease in which definite prolongation of life by hormonal manipulation can be proven is prostatic carcinoma. Orchiectomy, often with estrogen therapy, can result in remissions counted in years rather than in months, even in patients with widely scattered bony metastases. X-ray evidence of healing of these osseous lesions is sometimes an accompaniment of the symptomatic improvement.

The current trend in management of any case of disseminated malignancy is for a careful evaluation of the entire situation with a view to selection of the best possible regime for the initial attempt at treatment. Other types of therapy wil be under consideration at the same time—these may be useful at a later date. Criteria for patient selection still leave much to be desired; but considerable improvement has been made and the use of the various agents and procedures now available is not, in experienced hands, entirely a hit or miss proposition. Injudicious use of an agent as an initial or early form of treatment may seriously compromise the later usefulness of a potentially valuable procedure. This is particularly true in situations in which either x-ray or a cytotoxic drug might be applicable. The bone marrow depression which may follow the use of either makes it imperative that the "shots be placed where they will do the most good". Certain practical considerations are also obvious in situations in which hormone therapy is indicated but other varieties of treatment, e.g., x-ray or radiomimetic drugs, are possible. Ordinarily, sequential use of therapies has given longer periods of remission than combinations of several types used simultaneously. The obvious point is that cancer therapy should be tailored to the individual situation to perhaps a greater degree than exists in dealing with any other disease. The skill with which the various measures are used may be the determining factor in the degree or duration of disease control which is achieved.

The viewpoint is sometimes expressed that the medical treatment of disseminated malignancy is hardly worthwhile since its effects are in any case of a temporary nature. The patient who returns to useful employment or to a comfortable life with his family for months or years will not be inclined to so underestimate the value of a concentrated effort on his behalf. Nor should the fact that we are unable to "cure" disseminated cancer be unduly stressed. The majority of disease problems today must fall in the general category of the chronic "incurable" diseases. The patient with advanced heart or kidney disease, with many forms of arthritis, with diabetes, is just as incurable as the patient with metastatic malignancy. Admittedly, our methods of control of the diseases just mentioned are, at the present time, often superior to those available to the patient with cancer. On the other hand, the patient with a type of malignancy susceptible to modification by the means at our disposal deserves the psychological benefit of the knowledge that his disease has been at least temporarily controlled in others with the same diagnosis, and that he is not immediately doomed to an unrelenting descent through pain to death.

Current Currents

LEGISLATIVE ROUNDUP: President Eisenhower has signed the conference version of HR 12580. This bill, containing extensive amendments to the Social Security Act, authorizes substantial increases in federal grants to help with the health care expenses of 2,400,000 persons receiving old age assistance. It also establishes a new program by which federal matching funds are offered states to help finance the health care of an estimated 10,000,000 aged who, although not on relief, might find their income inadequate during illness.

This same bill also eliminates the age 50 requirement for eligibility for disability insurance benefits.

It is also interesting to note that HR 12580 does not provide for compulsory social security coverage of physicians. This provision, although originally in the bill, was deleted by a Senate amendment and was not reinstated by the Senate-House Conference Committee.

The bill was endorsed wholeheartedly by the American Medical Association, and its enactment reflects the effective legislative program conducted during the 86th Congress by American medicine. Much of the credit for informing the legislators about the profession's position on the health care issue must go to the various physician delegations which went to Washington for personal talks with their representatives.

During the months ahead, attention will be focused on just how well the new medical bill works. Since administration of the program rests entirely with the states, the success of the health aid plan for the aged will depend on how well each of the states accepts its responsibilities. Many county and state medical societies are already obtaining as much information as possible on how the new bill will affect their areas.

The Senate did not act on HR 10, which would have permitted self-employed physicians to establish tax-deferred pension plans. It is quite possible that the last minute rush of business during the post-convention session of Congress prevented favorable action on the measure.

AMEF: Over one thousand Virginia physicians came to the aid of their medical schools during 1959. Figures just released by the American Medical Education Foundation shows that 270 physicians contributed $11,434.94 through the Foundation, while 780 gave $34,491.85 through their alumni organizations—making a grand total of $45,-926.79. This represents a slight increase over 1958.

DID YOU KNOW! Jefferson Medical College, Philadelphia, believed to be the last all-male U.S. medical school, has lifted its ban against women. This means that 84 of the country's 85 schools are co-educational—the Woman's Medical College of Philadelphia remaining the only hold-out.

SEMINAR: Members of The Medical Society of Virginia have been invited to attend a special seminar on "Disabling Conditions of the Back" which will be held at the McGuire Veterans Administration Hospital, Richmond, on Friday, November 4. The program will begin at 10:30 A.M. and is expected to conclude not later than 3:30 P.M.

In addition to a number of Virginia physicians, the program will feature Dr. Allen Russek, Department of Physical Medicine and Rehabilitation at the New York University School of Medicine. A special session on industrial problems will be directed by Dr. Lawrence Weaver.

NEW FILM: A new film describing the physician's role in providing medical reports for patients who apply for disability benefits under the Federal Bureau of Old-Age and Survivors Insurance program is now available.

Produced and released by the Bureau of Old-Age and Survivors Insurance with the cooperation of the American Medical Association, the 30-minute, 16mm, black and white film is entitled, "The Disability Decision". Although designed primarily for viewing by physicians, it is also an interesting and informative presentation for audiences who may be concerned with the preparation of medical reports and their utilization in disability programs.

Prints of the film, "The Disability Decision", are now available (return postage only) from the American Medical Association Film Library, 535 North Dearborn Street, Chicago. The presence at film showings of a State agency physician who can answer questions concerning the methods of evaluating disability under the Old-Age and Survivors Insurance program may be arranged by contacting either the social security district office or the State agency.

FAA MEDICAL EXAMINERS: The Federal Aviation Agency has disclosed it is giving aviation medical examiners additional authority. According to a release from the Washington Report on the Medical Sciences, examiners may now deny, as well as issue, medical certificates to applicants whom they examine. Up until this time, they could grant certificates but cases involving doubt as to physical qualification had to be referred to FAA headquarters. Rejection papers will be forwarded to the FAA Civil Air Surgeon for review.

FOOD FOR THOUGHT: The cost for care and treatment of the mentally ill in this country is estimated at three billion dollars a year.

When adequate care and treatment are provided, seven out of ten mental patients leave mental hospitals improved or recovered.

Mental Health . . . .

GILBERT J. RICH, Ph.D., M.D.
Roanoke, Virginia

The Growth of Child Guidance

The field of psychiatric work designated today as child guidance had its beginning in 1909, when Dr. William Healy established in Chicago the clinic now known as the Institute for Juvenile Research. Its purpose was to make psychiatric and psychological studies of children who were before the Juvenile Court of that city and to aid the court in understanding these children and in handling them in such a way as to make them less likely again to commit delinquent acts. Few additional clinics were established for some years. Then, between 1920 and 1930, there was a renewed interest in the work and other cities established child guidance clinics. But they were mainly for delinquent children. The present wave of interest is something that has arisen since World War II, spurred on by the financial help provided by the National Mental Health Act.

My own involvement in this work has been during the past thirty years, so it is the growth and progress of child guidance during this period that I shall discuss at this time. Because of the heavy expenditure of time necessary for the proper study—and treatment—of an emotionally disturbed child, most of the work has been and still is conducted in various types of community clinics which receive their main support either from public funds or from local charities. Of course, private practice of child psychiatry is growing, but it is so time-consuming and expensive that it can be utilized only by families of considerable means.

By 1930, the general pattern of the child guidance clinic had been developed. More especially, the concept of the diagnostic and therapeutic team was well accepted. This is probably the most important contribution that has been made by this sub-specialty to psychiatric method. Only in the last decade have hospitals for the mentally ill started to adopt it. In the clinic, a team of persons from different professions work as equals for the benefit of the patient. The team consists typically of a psychiatrist, a clinical psychologist and a psychiatric social worker. It is the custom for the psychiatrist to be captain of the team, but the others are his professional colleagues and not just persons who carry out his orders. Each has a definite function to perform. It is true, of course, that today these functions are not as clearly marked off one from another as they were a few decades ago. Each member of the team, despite the varying backgrounds, is now so well trained that he can perform almost any part of the therapeutic work other than dealing with the strictly medical problems of the patient, which perforce remain the province of the psychiatrist.

One very noticeable development in work with children is the change in the type of problems that come to a clinic. The earlier clinics were concerned chiefly with the study of delinquent children and were often attached to a juvenile court. It soon became apparent both that delinquency was merely one type of abnormal behavior and also that the roots of such abnormality were to be found in the earlier years of the child's life. As a result, the focus of interest has broadened so that today most children are seen because of difficulties arising in the home, the school or among companions. It is being recognized that preventive work in the mental hygiene of children must begin when the abnormalities are first noticed and not wait until the illness is acute and the child has become an offender against the law.

Fortunately, this shift in emphasis has been accompanied by an increasing acceptance of child guidance by our communities. Time was when it was almost universally considered a disgrace for a family to refer one of their children to a psychiatric clinic, while there were school systems which made teachers feel that the suggestion of such a referral was an admission of failure. These old ideas are not wholly absent today, but they appear less and less frequently. Parents, teachers and others are coming to realize that a child is not necessarily "crazy" if he is referred to a clinic or to a psychiatrist, and that early diagnosis and treatment is the key to prevention in psychological medicine just as it is in physical medicine.

As might be expected, there has been gradual but

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Approved for publication by Commissioner, Department of Mental Hygiene & Hospitals.

marked improvement in the diagnostic tools available in this field of work. Two deserve special mention. The development in general psychiatry of the so-called dynamic or analytical points of view has yielded new insights into the growth processes of a child's mind and into the abnormalities that might occur as a result of many inner and outer factors. On the other hand, a new type of personality test has greatly strengthened the diagnostic work of the clinical psychologist. This is the projective test, in which the patient projects his personality structure (and its problems) into a task that is assigned to him. The best known of these tests is the Rorschach, in which the patient interprets meaningless ink-blots, but there are many others.

The development of therapeutic methods stands out even more clearly. Thirty years ago, a child guidance clinic carried out little direct treatment. The psychiatric social worker manipulated the environment to provide a better situation for the patient to live in, or called for help from various agencies which worked with children, their protection and their placement. The clinic was still mainly diagnostic and advisory in nature. Some psychotherapy was carried on, but not with outstanding success. Then came the introduction of play therapy. This was, to use current terminology, a major breakthrough. It provided workers in child guidance with a real therapeutic tool. More than that, it freed the child guidance clinic from its dependence on other social agencies and enabled it to develop into an independent unit. I can well remember the day when it was generally accepted that clinics could be successfully operated only in the larger cities, which had well-developed social agencies. This is no longer true. Now, smaller places and even rural areas can and do enjoy the benefits of such a clinic.

One more step in therapy deserves mention among the many that have appeared. This is the rise of group therapy. Children, instead of always being seen alone by the therapist, are often worked with in groups. Group treatment must not be thought of merely as a means of seeing more patients, and thus of saving time and expense and reducing waiting lists. It has positive values of its own and can bring about therapeutic effects that could not otherwise be achieved.

Despite their widespread use with adult patients, the newer tranquilizing and energizing drugs have not proved to be beneficial with the great majority of children exhibiting emotional and behavior difficulties. While these drugs do have some limited uses with children, their advent is not to be considered a major step forward within the field.

These developments in the aims, methods and procedures have been accompanied by a remarkable growth in the number of child guidance clinics. Thirty years ago, they were relatively scarce and none existed in cities of under 200,000 population; while today there are hundreds of such clinics in both large and small communities. It is not so long ago that Virginia had only the Memorial Guidance Clinic in Richmond. Now there are twenty-two mental health clinics in the State system. This story could be matched in most of our sister states, for it is typical of the popular acceptance of child guidance, and of the recognition throughout the country of the need for this type of preventive psychiatric work.

Child guidance has, indeed, moved forward over the years. We are today doing things that we could hardly have dreamed of thirty years ago. Further progress is to be expected as the growing emotional strains of modern living call for new and better methods.

Specialization

The story is current in Washington, and the incident is supposed to occur after the adoption of socialized medicine.

A stranger in the city was stricken with what he decided must be appendicitis and, in great agony, asked a friend what to do.

"You go to the clinic," said the friend, "and go thru the door marked 'Appendectomy.' "

The sufferer did so and found himself in a small room with two doors, one marked "Acute" the other "Chronic". He opened the "Acute" door, and went inside another room with two exits. These were labeled "Male" and "Female". He pushed open the "Male" door and discovered two more, "Republican" and "Democrat".

Resolutely marching thru the one marked "Republican", the unfortunate seeker after health found himself—out on the street.

The Presbyterian Journal (Southern)

Pre-Paid Medical Care....

Edited by
RICHARD J. ACKART, M.D.

Medical Coordination in Pennsylania

HUGH ROBERTSON, M.D.
Philadelphia, Pennsylvania

At the one hundred and ninth annual session [1959] of the Pennsylvania Medical Society a plan to pay for community health care by self-insurance was publicly announced with the whole-hearted support of the local medical societies. It was stated, "The success of dealing with the increasing costs of modern medical care by voluntary group prepay-payment plans requires the cooperation of organized medicine with the so-called third parties in which all interested partners must concede certain privileges for the good of all."

These are strange and wonderful words to emerge from a meeting of delegates of a state medical society. However, the medical profession in Pennsylvania is now convinced that it is very much a partner with Blue Cross and with Blue Cross subscribers (otherwise known as patients of the doctors) in preserving free and voluntary medicine in the United States.

It is of course possible that the presence of that astute and stubborn Insurance Commissioner of the Commonwealth of Pennsylvania, Francis R. Smith, might have had something to do with this rather sudden decision of all interested parties to sit down and amicably work together on pre-paid health problems. In his adjudication of April 15, 1958, Commissioner Smith stated tartly, "Testimony submitted in these hearings establishes beyond any doubt that unnecessary utilization of hospital service can be substantially reduced by proper action and cooperation of all interested parties, including Blue Cross Plans, their subscribers, doctors, and hospital administrators. Any suggestion that we can't do anything about it because we don't know to what extent the abuses exist should be summarily rejected."

Subsequently the Blue Cross Plan of Philadelphia conferred with the Philadelphia County Medical Society, and the Physicians' Review Board was born. The philosophy of its organization is unique; the Board is entirely independent. It was decided that the proposed group of prominent and actively-practicing doctors could only succeed in their difficult and thankless task if it were entirely free of domination and pressure from any group.

The Review Board is directed by the equally-divided supervision of two Co-Chairmen, chosen by conference of Blue Cross with the Philadelphia County Medical Society. The two-man-head plan has proven to be most fortunate; it provides divided responsibility when the going gets rough; it provides companionship in an excursion into new and strange territory; it provides constant encouragement and a chance to talk things over with a kindred spirit. The Review Board includes six groups of six doctors, each man qualifying as follows: (1) he is actively engaged in practice and has patients of his own whom he personally admits and treats in local hospitals; (2) he is well-liked and trusted by his associates; and (3) he is capable of calm and objective discussion, with no axes to grind, and no old grudges to irritate him. The thirty-six Board members represent the Staffs of all member hospitals and they represent all phases of medical practice. But when they come to meetings they represent only themselves —the Board asks for their personal unbiased judgment and gets it. The Board's duties are transacted in a strict business manner at regular business hours, with no night work or volunteer lassitude. It includes the most capable men available, pays them a decent fee, expects them to be present at three o'clock on the day their group meets, and dismisses them promptly at five o'clock.

The Board members meet in groups of six, once each month. The meetings are arranged so that each member of the Board knows beforehand that he will be expected from 3 to 5 P.M. on a certain Tuesday or Thursday of each month, and can plan his work accordingly. The meetings are held in very pleasant quarters in the centrally located Blue Cross building.

The meetings are conducted by the two Co-Chairmen, usually alternately but often jointly; both Chairmen are most often there. Secretarial, statistical, and recording services are available when needed. Members sit about a large table. Before each member is a pile of photo-copied hospital charts, chosen for examination as will be explained later. The subscriber contract states: "Each subscriber

authorizes and directs any doctor, nurse, hospital or other institution having at any time examined, diagnosed, treated, attended, or rendered service to that subscriber, or possessing any information or records or copies of records relating thereto, to furnish to Blue Cross at any time upon its request, any and all such information or records or copies of records."

The records presented to the Board for examination are complete hospital records, with laboratory reports, order sheets, nurses notes—everything that is in the hospital files regarding the patient. If the records are incomplete or inaccurate it is the fault of the attending physician, not the Review Board. During the first hour of the meeting each member carefully examines his group of records, making such notes as he desires and marking certain facts upon a chart for permanent business-card recording.

The second hour of the meeting brings a group discussion of the individual records. Each Board member, in turn, discusses each of the records he has reviewed, but the name of the patient, the name of the attending physician, and the name of the hospital are not divulged. Board members have been briefed on the provisions of the Blue Cross Contract. Certain important terms and provisions have been printed upon large cards for ready reference. A general discussion then ensues. The question is asked, "Is this patient entitled, by the terms of his contract with Blue Cross, to payment for this trip to the hospital?"

A vote is taken. If the Board decides that the hospitalization was not in keeping with the terms of the Blue Cross Contract, Blue Cross is advised not to pay the bill. Often the Board decides that the hospitalization completely fulfilled the requirements of this contract, and advises payment of the bill. Blue Cross has never questioned a decision; attending physicians frequently do. The Board at times advises payment of the bill but suggests that the attending physician be apprised of apparent overutilization and invited to explain it if he so desires.

Disputed decisions are presented to a second or third group for discussion. The hospital record is again reviewed and the protesting doctor's letter is read anonymously.

It is important to record that no Blue Cross official is present at any meeting except by special invitation, and that all discussion and decisions are made by doctors actually engaged in active medical practice.

After the Board members have done their work, they have no compunctions regarding their judgments for they had no knowledge of the indentity of those they have criticized. It has been said that too often audit committees are junior staff members—the junior surgeon audits surgery records, the junior medical man audits medical records, etc., and are afraid of professional reprisals by seniors. The Board men are all seniors and do not know whether the scrutinized doctor is a personal friend or foe, a professor or a recent resident.

During the meeting the Co-Chairmen supply information but take no active part in the decision of the Board. Subsequently, however, they notify Blue Cross that the Review Board has decided: (1) this particular hospitalization is not in accord with the Contract between the subscriber and Blue Cross and therefore Blue Cross should not pay the bill; (2) this particular hospitalization is in full accord with the Contract and should be paid; (3) the records are incomplete or confusing and the attending doctor should be asked for additional information before a decision can be reached; or (4) the bill should be paid but the attending physician should be apprised of an overuse of facilities that tends to increase the cost of hospital care.

In nearly every case a letter is written to the involved attending physician, telling him that the case history was examined during the review of a group of cases from his hospital. He is told that the letter is sent to him for his information and that no criticism is necessarily implied regarding his treatment of the patient. A Blue Cross Contract is sent to him, with the disputed terms marked in red ink. He is invited, if he feels that the hospital records are inaccurate or incomplete, to write to the Board and supply further pertinent information. All correspondence is written and signed by the two Co-Chairmen. The complete list of Review Board members is printed on the stationery letterhead.

Letters have gone to a great variety of doctors. Nationally known surgeons, Chiefs of Staffs, and members of the Review Board have received letters. An occasional doctor is furious and takes the letter as a personal affront to his honor and integrity. Usually the doctor becomes embarrassed when he goes to the record room and looks at the questioned chart; then he writes, giving information that should have been part of the record. Upon receipt of such letter, the case is given to a second group of the Board and the additional information is read from his letter. The decision of the second group is relayed to the doctor; occasionally the first decision is reversed, and the doctor is told that the Board will recommend payment of the bill as soon as he makes

the additional information (or a copy of his letter) a part of the official hospital record.

Several doctors have insisted that they be permitted to appear personally before the Board to defend their honor and ethics. Since the Board has never impugned the honor or ethics of any doctor in its deliberation or correspondence, it steadfastly refuses to permit such personal appearances. The Co-Chairmen take the brunt of all this occasional unpleasantness—they have lived full and productive lives, are looking for no favors or advancement, knew that this would be a part of the duties that someone had to assume, and shrug it off.

What transpires at the meetings of the Physicians' Review Board, and any benefit that may accrue to the community by such action, is dependent upon what takes place before the men assemble. While it is true that Blue Cross could not possibly do what this organized group of doctors is doing, it is equally true that without Blue Cross the Physicians' Review Board would be just another committee to draw up high and lofty resolutions.

Here, at long last, is a group of mature and capable doctors, encouraged by the good wishes of a community prodded on by Commonwealth Government, and endowed bountifully by Blue Cross with clerical help, statistical and mechanical assistance, telephone, office space, and funds for necessary expenses.

For years Blue Cross has been paying hospital bills it felt were not in accordance with the terms of its subscriber agreements. It tried at first to have a medical director pass upon the validity of certain claims, but his objectivity was openly and loudly protested. He was an insurance company employee and had no practice of his own and that was that. Next Blue Cross tried sending questionable cases to "medical referees". That didn't work. Then came deficits and public rate hearings and a general demand that something must be done about questionable hospitalization claims.

During all this time capable and experienced Blue Cross employees were processing hundreds of claims that they wished some capable and interested doctors would or could check. At this stage of processing one can never be sure of the implications of a hospital bill; only a review of the complete hospital records will give a satisfactory picture of the hospitalization. Many of the records for the Review Board come from the experienced hands of skeptical processors. The questioned hospital bills are sorted by the Co-Chairmen. Those deemed worthy of further study are listed and Blue Cross employees go to the hospitals and make photo-copies of the complete hospital record. These records are then inspected by the two Co-Chairmen; some bills very obviously should be paid while others are questionable and are submitted to the Board for decision. This, then, is how the stack of hospital records gets on the table of the Review Board.

The Board has attempted to keep its feet on the ground and to pursue actively the specific task set out by the Insurance Commissioner of the State of Pennsylvania; namely, "to develop and carry out methods and plans to reduce unnecessary utilization of hospital service."

In the study of hundreds of charts the Board has found only one instance of frank dishonesty. It has discovered only a few scattered cases of willful evasion or sharp practices in the admission of patients for unnecessary hospitalization. But it is convinced that the entire field of pre-paid hospital insurance is overlaid by the dust of time-honored free-and-easy habits that waste a great deal of Blue Cross reserves. Community doctors can change these hospitalization habits when they become convinced that government will do it for them unless they bestir themselves. Perhaps the irritation of the Board's letters and its constant pressure for better hospital records will help do this.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Poison Information Centers in Virginia

Many children will die this year from accidental poisoning. This is appalling, but not surprising, when one considers the multitude of household items kept within reach of the child that are potential poisons. Many of these, in addition to being attractively packaged, are even perfumed or flavored. Children by nature are curious and have a tendency to put everything they can in their mouths. This combination may result in cases of serious poisoning.

Prevention is the best approach to the problem. Educating the parent to maintain good household discipline is essential. Precautions to follow are:

(1) All potentially harmful substances should be put in places completely inaccessible to the child, (don't underestimate the child's mobility) and don't be lulled into an "It can't happen to us" philosophy.

(2) Poisons are dangerous in any container but are more so when stored in a soda or milk bottle, coffee can, or some other mislabeled or unlabeled container. Check your containers.

(3) Screw bottle caps on tightly, throw old medicines away, and start educating the youngster between what is good or bad for him.

In spite of all precautions some accidental poisonings will occur. What can be done to prevent death or minimize the effects in such cases? With approximately a quarter of a million commercial products on the market and thousands of new ones appearing monthly, the job of trying to keep track of them is tremendous. Recently enacted laws will require the manufacturer to put the toxic ingredients on the label in many cases.

It would be almost impossible for the busy practitioner to be familiar with the many possible toxic ingredients, their effects on man, and their proper treatment. That's where the Poison Information Center may be of assistance. It is the center's goal to have on file the toxic ingredients of as many commercial and household products as possible. The fact that some products contain no toxic substances is equally pertinent. The center may also keep a reference on recommended treatment for the particular poison in question.

A poison information center is a vital service which can be set into operation with a minimum of money and effort, and a maximum of interest and enthusiasm.

The first such center was established in Chicago about five years ago. Virginia quickly followed the example and established its first center in Richmond a year later. There are now 12 such centers in Virginia and the number is expected to increase.

A Poison Information Center may begin modestly, expanding as experience and need increase. Most of them are in hospitals and, therefore, include equipment for treating emergency poison cases.

Personnel consist primarily of volunteer workers who operate the centers in addition to their other regular duties. The Richmond Center is located in the Pediatric Department of Medical College of Virginia Hospital. The service is available 24 hours a day and the resident on call in the department handles all requests for information.

Any community hospital interested in establishing such a center may write to Office of the Chief Medical Examiner, the State Department of Health, Richmond, Virginia.

The following are the Poison Information Centers that have been established on a local basis in Virginia:

Location	*Director*
Danville Danville Memorial Hospital	James F. Burch, B.S. Swift 3-6311
Charlottesville University of Virginia Department of Pediatrics	Julia E. Edmunds, M.D. Charlottesville 2-2121
Christiansburg New Altamont Hospital	L. W. Frame, M.D. Evergreen 2-2941
Norfolk Office of the Chief Medical Examiner 427 East Charlotte St.	Ramon A. Morano, M.Sc. Madison 5-1306
Roanoke Roanoke Memorial Hospital 611 McDowell Ave., N. W.	Andrew D. Shapiro, M.D. Diamond 2-4541

Portsmouth Portsmouth Naval Hospital	Officer in Charge Exchange 9-2441
Petersburg Petersburg General Hospital	Richard Funk, M.D. Regent 2-7220
Staunton King's Daughters' Hospital	Robert D. Anderson, B.S. Tuxedo 5-0361
Hampton Dixie Hospital	Thomas W. Sale, M.D. Park 2-1971
Lexington Stonewall Jackson Hospital	F. A. Feddeman, M.D. Hobart 3-3131
Lynchburg	Edwin A. Harper, M.D.
Lynchburg General Hospital	Office—VI 5-3691 Home—VI 6-0389 Hosp.—VI-6-6511
Richmond Medical College of Virginia	Pediatric Resident on Call Milton 4-9851 Sidney Kaye, Ph.D. Technical Director

MONTHLY REPORT OF BUREAU OF COMMUNICABLE DISEASE CONTROL

	Aug. 1960	Aug. 1959	Jan.-Aug. 1960	Jan.-Aug. 1959
Brucellosis	6	1	31	16
Diphtheria	2	0	11	6
Hepatitis (Infectious)	63	43	634	293
Measles	114	188	6256	14,483
Meningococcal Infections	7	3	44	61
Aseptic Meningitis	6	—	20	—
Poliomyelitis	6	83	8	120
Rabies (In Animals)	16	13	162	119
Rocky Mt. Spotted Fever	12	6	29	21
Streptococcal Infections	247	424	4441	6716
Tularemia	3	3	28	4
Typhoid	1	3	16	15

Gout in Women

The incidence of gout in women has been found to be "considerably higher" than generally believed in a recent study.

Gout is a disease characterized by a painful inflammation of the joints of the hands and feet. It is caused by the accumulation of uric acid in the blood.

The study was based on 74 cases of gouty arthritis seen at two large Detroit hospitals, Detroit Receiving and Wayne County General, during the past four years.

Writing in the September Archives of Internal Medicine, published by the American Medical Association, four researchers said gout is generally considered to be a disease primarily affecting the middle-aged white man. However, 19 of the 74 patients were women and 45 of the 74 were Negroes.

In our experience, gouty arthritis is a relatively common disease which can strike both Negro and white, man and woman."

"No significant racial differences in the incidence of gout were noted when the figures were compared to statistics for hospital admissions.

"The incidence of gout in women was found to be considerably higher than is usually reported."

The authors of the article are Rachel E. Turner, M.R.C.S., L.R.P.C.; Martin J. Frank, M.D.; Dorothy Van Ausdal, M.D., and Alfred Jay Bollet, M.D.

Miscellaneous....

WARREN C. GREGORY, M.D.
Winchester, Virginia

Seven Year Maternity and Nursery Survival in a Community Hospital.

This statistical report reflects maternity and nursery activity over a seven year period in a 254 bed, 46 bassinet community hospital in Northwestern Virginia.

Maternity care is rendered by four Board certified obstetricians and seven family physicians, who include obstetrics in their practice. Pediatric nursery care is rendered by three Board pediatricians and nine family physicians. For the more common emergencies, help from one of eight surgical, three orthopedic and one neurologic consultant is available. Cardiac, thoracic and plastic surgery is sent to the nearby teaching centers.

Coding of charts was begun in early 1954, so the data for 1953 is not as accurate as the subsequent years. Table I shows year by year the activity and mortality experience. This report will deal only with the survival rates and not attempt to discuss the causes of death. The medical staff meets monthly for a mortality conference where clinical and pathologic details are discussed.

COMMENTS

Table I, in addition to showing the year by year data—summarizes the total of the seven year experience. There were three maternity deaths or one maternity death per 3191 live births. The caesarian section rate varies from year to year from 3.2% in 1953 to 7.2% in 1957 and averages 5.8%. These figures reflect the incidence of difficult obstetrical cases referred for care from surrounding hospitals, as well as complications developing in routine care locally. Approximately 50% of obstetrical cases come from Winchester and immediately surrounding area. The other 50% from more distant communities. Stillbirths occurred on average of one for each 49 deliveries. Term births are separated from premature births by weight. An infant weighing 5 pounds 8 ounces or less is reported as premature and 5 pounds 9 ounces or more as a term birth as outlined in *Standards and Recommendations for Hospital Care of Newborn Infants—Full Term and Premature,* revised 1957, available from American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois for $1.50 or American Hospital Association.

The fractions of ounces in this report will be rounded off in future to

0 to 2 lbs. 3 ounces
2-4 to 3-4
3-5 to 4-6
4-7 to 5-8

Death of a term infant occurred one for each 170 deliveries. Premature births occured in 9.0% of deliveries and percent survival by weight group improved as the birth weight increased.

Dunham[1] reports prognosis for survival of premature infants to be 0.10%, at least 50%, at least 82% and at least 93% for each reported weight groups reported above.

SUMMARY

Survival data are presented for a seven year period for maternity and nursery care of term and premature infants.

Report of Committee on Fetus and Newborn.

Preceding is a report on Fetal Mortality, Term and Premature infants. Each area in Virginia has a pediatric consultant available for those hospitals needing help in evaluating their own data.

It is recommended to each hospital in Virginia, where maternity cases are handled, that a committee for Fetus and Newborn be appointed—to include the Hospital Administrator, Chief of Nursery service and one or more interested physicians. This committee's primary duty is to secure and put into effect the recommendations of the manual on *Standards and Recommendations for Hospital Care of Newborn Infants, Full Term and Premature* and (2) to make a statistical evaluation of mortality as outlined in the above manual and as reported in this issue of Virginia Medical Monthly.

The author gratefully acknowledges the assistance of Mrs. Hazel Hottle, R.N., Supervisor of Nursery, and Miss Ida Showalter, A.T.R., Supervisor of the Record Room, for their assistance in preparing this report.

1. Dunham, E. C.: Premature Infants—A Manual for Physicians. Publication No. 325, United Federal Security Agency, Children's Bureau, 1948 Page 94.

TABLE I

Births Term and Premature

Winchester Memorial Hospital

	Total Live Births			Maternal Mortality	Caesarean Sections			Stillbirths	Abortions	Term Births			Weights	Premature Births		
	No.	Deaths	Percent		Del.	Sect.	Percent			No.	Deaths	Percent		No.	Deaths	Percent Survival
1953	1226	29	97.7		1246	41	3.2	23	10	1095	3	99.8	0—2-3¼	13	11	15
													2-3¼—3-5	14	6	57
													3-5—4-6½	18	4	88
													4-6½—5-8	86	5	94.3
														131	26	
1954	1231	24	98.1	1	1265	70	5.4	17	76	1089	7	99.4	0—2-3¼	7	6	14.3
													2-3¼—3-5	14	3	79
													3-5—4-6½	19	3	86
													4-6½—5-8	88	5	94
														128	17	
1955	1305	30	98		1326	83	6.2	20	122	1182	7	99.4	0—2-3¼	10	10	
													2-3¼—3-5	20	7	65
													3-5—4-6½	37	3	92
													4-6½—5-8	56	3	94.6
														123	23	
1956	1423	22	98.5		1435	69	4.8	19	124	1300	11	99.2	0—2-3¼	3	3	
													2-3¼—3-5	24	7	71
													3-5—4-6½	49	0	100
													4-6½—5-8	47	1	98
														123	11	
1957	1474	29	98.1		1484	108	7.2	17	98	1353	6	99.6	0—2-3¼	9	9	
													2-3¼—3-5	8	2	75
													3-5—4-6½	34	9	74
													4-6½—5-8	70	3	96
														121	23	
1958	1435	26	98.2		1450	93	6.4	24	165	1311	7	99.5	0—2-3¼	8	8	
													2-3¼—3-5	10	6	40
													3-5—4-6½	25	4	74
													4-6½—5-8	81	1	98.8
														124	19	
1959	1480	33	97.1	1	1490	99	6.6	23	175	1353	10	99.3	0—2-3¼	11	11	
													2-3¼—3-5	11	6	46
													3-5—4-6½	25	5	80
													4-6½—5-8	80	1	98.8
														127	23	
Totals	9574	193	97.9	3	9696	563	5.8	198	1198	8683	51	99.4	0—2-3	61	58	4.9
													2-4—3-4	101	37	63.3
													3-5—4-6	207	78	86.5
													4-7—5-8	508	19	96.0

The cited manual may be obtained from American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois at a cost of $1.50 each.

Below is listed each hospital by area and the name and address of the consultant member of the Virginia State Medical Societies—subcommittee on Fetus and Newborn of Child Health Committee; call on these consultants for help in evaluating your record month by month and have ready your 1960 report to forward to the consultant by February 1, 1961.

Abingdon

Dr. H. H. Pinkerton, Johnston Memorial Hospital, Abingdon.
- Johnston Memorial Hospital (Abingdon)
- Grundy Hospital (Grundy)
- Clinch Valley Clinic (Tazewell County)
- Mattie Williams Hospital (Richland)
- Jeffersonville Hospital (Tazewell)
- Lee Memorial Hospital (Marion)
- Marion General Hospital (Marion)
- Thomas K. McKee Hospital (Saltville)
- Greever Clinic (Smyth County) Chilhowie
- Lebanon General Hospital (Lebanon)

Alexandria

Dr. Robert Anderson, 312 S. Washington St., Alexandria.
- Alexandria Hospital
- Arlington Hospital
- U. S. Naval Hospital (Prince William County)
- Medical Center Hospital (Prince William County)
- Fauquier Hospital (Fauquier County)
- Remington Medical Center (Fauquier County)
- U. S. Army Hospital, Fort Belvoir (Fairfax County)

Bristol

Dr. Joseph E. Mitchell, 1601 Lee Highway, Bristol.
- Fort Shelby Hospital (Bristol)
- Park Avenue Hospital (Norton)
- St. Mary's Hospital (Norton)
- Dickinson County Hospital
- Sutherland Clinics
- Appalachia General Hospital (Wise County)
- Wise Memorial Hospital (Wise County)
- Clinchfield Hospital (Russell County) Dante
- Lee General Hospital (Pennington Gap)

Charlottesville

Dr. Morris A. Lambdin, University Virginia Hospital, Charlottesville.
- University Virginia Hospital
- Martha Jefferson Hospital
- Rockingham Memorial Hospital (Harrisonburg)
- Green Valley Clinic Bergton (Rockingham County)
- Kings Daughters Hospital (Staunton)
- Waynesboro Community Hospital (Waynesboro)
- Stonewall Jackson Hospital (Lexington)
- Gordonsville Community Hospital (Gordonsville)
- Louisa Memorial Center (Louisa)

Clifton Forge

Dr. Maurice Fliess, Harvey Building, Clifton Forge.
- Chesapeake & Ohio Railway Employees Hospital (Clifton Forge)
- Community House Hospital (Hot Springs)
- Alleghany Memorial Hospital (Covington)

Lynchburg

Dr. Edwin Harper, Medical Center, Suite 19, Lynchburg.
- Lynchburg General Hospital
- Virginia Baptist Hospital
- The Danville Memorial Hospital
- Winslow (Danville)
- Bedford County Memorial Hospital (Bedford)
- South Main Street Hospital (Chatham)
- South Boston Hospital (South Boston)
- Halifax Community Hospital (South Boston)

Newport News

Dr. Walter S. Price, 3116 Victoria Blvd., Hampton.
- Riverside Hospital
- Mary Immaculate Hospital
- Whittaker Memorial Hospital
- Dixie Hospital (Hampton)
- U. S. Army Hospital (Fort Monroe)
- U. S. Army Hospital (Langley Field)
- U. S. Army Hospital (Fort Eustis)
- Dr. Sadler's Hospital (Mathews)
- Green Maternity (Lancaster County)
- Dr. Gravatt's Medical Center (Lancaster County)

Norfolk

Dr. Henry Rogers, 1306 Colonial Avenue, Norfolk.
- Norfolk General Hospital
- DePaul Hospital
- Leigh Memorial Hospital

Norfolk Community Hospital
U. S. Naval Hospital (Norfolk)
Portsmouth General Hospital
Maryview Hospital (Portsmouth)
Virginia Beach Hospital
U. S. Naval Air Station Hospital (Accomac))
Northampton-Accomack Hospital (Nassawadox)
Louise Obici Memorial Hospital (Suffolk)

Petersburg

Dr. Kirby T. Hart, 109 S. Market St., Petersburg.
Petersburg General Hospital
John Randolph Hospital Hopewell)
U. S. Army Hospital (Fort Lee)
Community Memorial Hospital (South Hill)
Ailsworth Medical Center (Charlotte County)

Richmond

Dr. Wm. P. Spencer, 5204 Patterson Ave., Richmond.
Medical College of Virginia Hospital
Johnson-Willis Hospital
Retreat for the Sick Hospital
Saint Lukes Hospital
Grace Hospital
Stuart Circle Hospital
Richmond Community Hospital
Salvation Army Hospital
Mary Washington Hospital (Fredericksburg)
Bell Hospital (Williamsburg)
Blayton Hospital & Medical Center (Williamsburg)
Bane & Bishop Medical Center (Lawrenceville)
Southside Community Hospital (Farmville)
Raiford Memorial Hospital (Franklin)
Brookfield Home (Henrico County)

Roanoke

Dr. John T. Walke, 1036 Oakwood Drive, S. W., Roanoke.
Roanoke Memorial Hospital
Lewis Gale Hospital
Jefferson Hospital
Burrell Memorial Hospital
Shenandoah Hospital
Blue Ridge Hospital (Galax)
Waddell Hospital (Galax)
Community Hospital (Martinsville)
Martinsville General Hospital
Radford Community Hospital (Radford)
Hillsville Hospital (Carroll County)
Stuart Hospital (Patrick County)
Pulaski Hospital
Chitwood Memorial Hospital (Wytheville)
Wytheville Hospital
Giles Memorial Hospital (Pearisburg)
Franklin Memorial Hospital (Franklin County)
New Altamont Hospital (Christiansburg)

Winchester

Dr. Warren C. Gregory, 114 W. Boscawen Street, Winchester.
Winchester Memorial Hospital
Page Memorial Hospital (Page County) Luray
Henkel Nursing Home
Shenandoah County Hospital (Woodstock)
Warren Memorial Hospital (Front Royal)
Loudoun County Hospital (Leesburg)
Loudoun-Fauquier Health Center

WARREN C. GREGORY, M.D., *Chairman*
WILLIAM SPENCER, M.D., *Co-Chairman*

Book Announcements . . . .

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us same.

I Prescribe Laughter. By THOMAS RICHARD REES, M.D. Vantage Press, New York. 1960. 111 pages. Price $2.75.

Your Child's Care. 1001 Questions and Answers. A new, revised, and enlarged edition of "'A Pediatric Manual for Mothers" by HARRY R. LITCHFIELD, M.D., F.A.C.P., and LEON H. DEMBO, M.D. Doubleday & Company, Inc., Garden City, N. Y. 1960. 257 pages. Price $3.95.

Rudolph Matas. A Biography of One of the Great Pioneers in Surgery. By ISIDORE COHN, M.D. With Herman B. Deutsch. Doubleday & Company, Inc., Garden City, N. Y. 1960. 431 pages. Price $5.95.

Significant Trends in Medical Research. Ciba Foundation Tenth Anniversary Symposium. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., Cecilia M. O'Connor, B.Sc., and Maeve O'Connor, B.A. Little, Brown and Company, Boston. 1960. xii-356 pages. With 41 Illustrations. Price $9.50.

Medicine Today. A Report on a Decade of Progress. By MARGUERITE CLARK. Funk & Wagnalls Company, New York. 1960. 360 pages. Price $4.95.

Help-Bringers: Versatile Physicians of New Jersey. By FRED B. ROGERS, M.D., Temple University School of Medicine, Philadelphia. Foreword by Henry A. Davidson, M.D., Editor, Journal of The Medical Society of New Jersey. Vantage Press, New York. 1960. 125 pages. Illustrated. Price $2.95.

Medical Research and the Death Penalty. A Dialogue. By JACK KEVORKIAN, M.D. Vantage Press, New York. 1960. 75 pages. Price $2.50.

Pardon My Sneeze. The Story of Allergy. By MILTON MILLMAN, M.D., Fellow American College of Allergists; Past President San Diego Biomedical Research Institute, etc. Kuchirka Books, San Diego, California. 1960. 215 pages. Illustrated. Price $4.00.

The List Method of Psychotherapy. By ELIZABETH SHER, ELEANOR MESSING, THEODORA HIRSCHHORN, ENIS POST, ANNETTE DAVIS, and ARTHUR MESSING. With an Introduction by Jacob S. List. Philosophical Library, New York. 1960. xi-258 pages. Price $7.50.

Virus Virulence and Pathogenicity. In Honour of Prof. J. Mulder. Ciba Foundation Study Group No. 4. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.R.C.P. and Cecilia M. O'Connor, B.Sc. Little, Brown and Company, Boston. 1960. viii-114 pages. With 13 Illustrations.

From Fish to Philosopher. The Story of Our Internal Environment. By HOMER W. SMITH. Supplement with collaboration of Ciba Pharmaceutical Products, Inc. Issued by Ciba Pharmaceutical Products, Inc. (Summit, New Jersey) with permission of Little, Brown & Company (Boston). xiii-304 pages. Illustrated.

Henry E. Sigerist on the Sociology of Medicine. Edited by Milton I. Roemer, M.D., Director of Research, Sloan Institute of Hospital Administration, Cornell University. Foreword by James M. Mackintosh, M.D., formerly Dean, University of London School of Hygiene and Tropical Medicine; Director, Division of Education and Training Service, World Health Organization. MD Publications, Inc., New York. 1960. xiii-397 pages. Price $6.75.

Women and Fatigue. A Woman Doctor's Answer. MARION HILLIARD, M.D. Doubleday & Company, Inc., Garden City, N. Y. 1960. x-175 pages. Price $2.95.

Significant Trends in Medical Research. Ciba Foundation Tenth Anniversary Symposium. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., Cecilia M. O'Connor, B.Sc., and Maeve O'Connor, B.A. Little, Brown and Company, Boston. 1960. xii-356 pages. With 41 Illustrations. Price $9.50.

This small volume contains the transactions of a special symposium arranged to celebrate the 10th anniversary of the opening of the Ciba Foundation. Not indicated in the title is the fact that this 10th anniversary symposium contains 13 excellent presentations by the participants, seven of whom are Nobel Laureates, all of whom are eminent international scientists. Included are reviews of the past ten years' work and implications for future research such as: Molecular Structure in Relation to Biology and Medicine (L. Pauling), Chemical Basis of Virus Multiplication (G. Schram), Genetics and Medicine (J. Waldenstrom), Ten Years of General Neurophysiology (A. von Muralt), The Nature and Mechanism of Action of Hormones (F. G. Young), Metabolic Problems Involving the Pancreas (C. H. Best), Malignant Transformation: Its Mechanisms and Nature (A. Haddow), and Research in Clinical Nutrition (J. F. Brock). Dr. James A. Shannon, Director of the National Institutes of Health, contributed a thoughtful and comprehensive review of factors influencing the substance and dimension of medical research in the United States approached from the standpoint of the historical development of medical research in this country.

As usual in the Ciba Symposia, the discussions of the presentations are also interesting and valuable. The volume contains what one participant likes to call, "responsible speculation" on many points. This is the 50th in a series of Ciba Foundation Symposia and Colloquia, and the high excellence of previous volumes is maintained.

L. D. Abbott, M.D.

Editorial . . . .

Notes on Civil War Prison Care

THE EVOLUTION of present day hospital-dispensary systems in our prisons is a far cry from those of a century ago. Only rudimentory care, at best, was administered and, under the exigencies of war, it became a problem of maintaining the barest essentials in food, medicine, and clothing. Preventive medicine was attempted where possible early in the Civil War, but a consideration as to the time on the medical calendar and, more important, an ever increasing curtailment of supplies, denied adequate or even basic health care to many. Malnutrition, severe diarrhea of varied etiologies, uncontrollable surgical infections, and tuberculosis were especially prominent among the prisoners. Nervous and mental diseases seem to have been a severe problem among many and especially so in the latter stages of the war when the efforts to avoid filth and obtain something edible and potable became paramount issues.

More than 400,000 men were confined under the charge of at least 100,000 others during the Civil War, and more than 150 prisons, widely separated geographically, confined them. Statements as to kindness and acts of brutality occur in both camps and the discrepancy of reports becomes even more confusing when one attempts to run down truly objective statements. We are all familiar with the highly publicized and emotionally charged "Andersonville" by MacKinlay Kantor, and the recent stage production based on that book relating to the conditions under which Federal prisoners were kept at this prison, and this essayist in no way tends to apologize for that. Only a brief review of the facts, however, reveals that conditions in one or two of the more notorious Federal prison camps were of equal, or even worse, repute. For example, Camp Douglas, near Chicago, Illinois, was located on low terrain which flooded after every rain, and stagnant pools of water frequently accumulated. This place had the unenviable record of the highest rate of mortality for any one prison during one month of the war (in February 1863) when the mortality rate of 10% was obtained.

Elmira Prison, located in upstate New York, provided better conditions for the thousands of Confederate prisoners confined there than the notorious Camp Douglas; however, it is worthy of note that in the midst of plenty in the rich State of New York, the prisoners were severely attacked by scurvy due to a lack of fresh vegetables and fruits.

Andersonville Prison in Georgia, in the summer of 1864, also must have been a miserable place as its death rate from disease, insufficient food, and shooting of prisoners who crossed the so-called "dead-line" was 127 in a single day, or one every 11 minutes. At Andersonville, as in other prisons both North and South, the officers in charge lived in fear of rebellion among the prisoners. During the latter months of the war less than 2300 men, almost all of them immature militia, were in charge of 32,000 Federal prisoners. This led to the infamous term of the "dead-line", whereby the guards were ordered to shoot without hesitation any prisoner crossing a given point which was clearly demarcated in all stockade prisons.

By 1863, the number of prisoners on both sides had increased and their care began to be a serious matter, especially because of the men needed to be withdrawn from the

effective fighting forces to guard the prisoners, and the expense of feeding them. During most of 1864, prisoners on neither side were permitted to receive supplies from the outside. As the complaints grew, arrangements were made by relatives and friends to help them. This led to drives on both sides to obtain food, clothing, and medicine, for their prisoners, and, finally, a resumption of the exchange of prisoners as had been set up in the early months of the war.

Reports of suffering in both Northern and Southern prisons increased late in the war, and, in fact, the statement was prevalent in the North that suffering was intentionally inflicted on prisoners in Southern camps, and suggestions for retaliation were conceived. This resulted in a reduced food quota for Southern prisoners; however, the official ration list, even though reduced, should have been adequate to prevent serious suffering. Quotes from the prisoners, however, would indicate that they did not receive their food allocations and, in fact, were often hungry and experienced many of the diseases associated with malnutrition-deficiency states.

Many threats for the alleged mistreatment of the prisoners were made during the war, but, fortunately, rarely carried out. One scene of retaliation, however, did occur in August 1864 at the time Sherman was blasting and burning his way through Georgia, and pushing everything before him. Confederate commanders seized upon a number of Union prisoners, and sent them to Charleston, South Carolina, where they were confined within the city limits, which was at the time under the fire of Federal batteries. This act so infuriated Federal commanders that they retaliated by seizing 600 Confederate officers and placed them in a stockade type prison on Morris Island, at that time under siege of Confederate batteries. Luckily, little or no damage was done on either side as projectiles from both sides seemed to have been purposely aimed high.

On another occasion Federal General Butler is alleged to have placed a number of Confederate prisoners to work on the Dutch Gap Canal, then under Confederate fire. This was done in retaliation for Federal prisoners reputedly ordered to work on fortifications under siege. It is interesting to note that on the denial of General Lee it was intended to place prisoners under fire, General Grant countermanded General Butler's order and had the squad withdrawn from the Dutch Gap Canal.

That the prisoners of the Confederates were hungry most of the time after 1863 is probably true. It goes without saying that so were the armies of the Confederacy. To maintain an effective office of the Commissary-General for the Confederacy was practically impossible under the circumstances at the time. Food was present in the Southland but could not be moved to the appropriate places in time. A fair evaluation of the well-nigh impossible problems of transportation points up this fact.

A fact-finding commission, appointed by the United States Army, and headed by the Adjutant-General, summarized their findings regarding relative mortality in Northern and Southern prisons. It stated that 462,634 Confederate soldiers were captured during the war, and that 25,976 died in captivity; 247,769 were paroled on the field. By contrast only 211,411 Federal soldiers were captured during the war, and 30,218 died in captivity; 16,668 were paroled on the field. According to these figures the mortality in Confedeate prisons was 15.5% while the Federal prison mortality was 12%. These figures, however, are at variance with the Confederate records which gave a Federal mortality of only 9%.

R. E. Mitchell, M.D.

Thanks to Our Virginia Statesmen

SENATOR HARRY BYRD has always been a friend of the physicians of Virginia but his efforts during the past few months in our behalf have made the entire medical profession of this country indebted to him. This he was able to accomplish by reason of his position as one of the senior members of the Senate and by virtue of his chairmanship of the powerful Senate Finance Committee.

This Committee's action in failing to report out the several Forand-type bills prevented what otherwise would have proved to be the entering wedge of Socialized Medicine. On the other hand, favorable action by the Finance Committee in the case of the "federal-state program" bill, which had the blessing of the American Medical Association, enabled this worthwhile measure to pass the Senate and it will now provide aid in the proper manner for those who need it.

Largely through Chairman Byrd's cooperation the Keogh-Simpson bill was reported out favorably but the Senate did not act on this measure before its adjournment. However, with both House and Senate Finance Committee concurring there is every reason to believe that favorable action will be taken by the next Congress.

A final indication of Senator Byrd's desire to learn our thinking with respect to current medical legislation was the letter he sent to all Virginia physicians several weeks ago requesting our wishes regarding the inclusion of physicians in Social Security. As soon as it became evident that the doctors were opposed (532 in favor and 936 against) he led the fight that resulted in the deletion of this provision from H. R. 12580.

Senator Byrd did not accomplish all this single-handedly but he, more than anyone else in Washington, made these favorable actions possible. Every physician in America should feel fortunate that the Senator did not carry out his most understandable intention of retiring from public life two years ago.

We also are indebted to the majority of our other Virginia representatives for yeoman service during this important session of Congress. Senator Willis Robertson, and Congressmen Howard Smith and Burr Harrison were especially helpful by virtue of their committee assignments. Our Republican legislators Richard Poff and Joel Broyhill were also active. In fact it was a team victory and one in which every Virginian should take a great measure of pride.

HARRY J. WARTHEN, M.D.

News Notes . . . .

New Members.

Since the list published in the September issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

James Pray Baker, Jr., M.D., Culpeper
John Wesley Gales, M.D., Galax
John Franklin Gibson, Jr., M.D., Arlington
William Otey McCabe, Jr., M.D., Forest
John Joseph Nolan, M.D., Arlington
Manly Whitfield Rankin, Jr., M.D., Eagle Rock
Charles Wellington Richardson, M.D., Galax
Frank M. Ripberger, M.D., Alexandria
David Elijah Robinette, M.D., Dante

Staff of New Hospital.

Dr. George J. Oliver, Jr., has been elected president and chief of staff of the new Williamsburg Community Hospital. Dr. H. G. Stokes has been named vice president and Dr. C. J. Chohany secretary. Members of the staff will be Drs. B. H. Bailey, B. I. Bell, B. I. Bell, Jr., J. B. Blayton, R. E. DeBord, F. A. Dick, F. L. Fernandez, J. L. Jones, B. T. Painter, J. R. Tucker, and G. H. van Drien.

The hospital is scheduled to open late this fall.

Clinical Directors.

Drs. William H. Grey and Carlos A. Recio have been appointed as clinical directors of Western State Hospital.

American College of Chest Physicians.

The Southern Chapter of the College will hold its annual meeting at the Statler-Hilton Hotel, St. Louis, October 30-31, 1960. The program is as follows: Tuberculosis in an Industrial Plant by Drs. James T. Perret and Neill K. Weaver, Baton Rouge, La.; Adrenocorticoids in the Treatment of Tuberculosis by Dr. William W. Coulter, Jr., Lafayette, La.; Adult Histiocytosis by Drs. John N. Bickers and Perry J. Ekman, New Orleans; Physiological Studies on Patients with Bullous Emphysema by Drs. Charles E. Andrews and William E. Ruth, Kansas City, Mo.; Hypertrophy of the Right Ventricle in Centrilobular and Panlobular Emphysema by Drs. Herbert C. Sweet, James R. Wyatt, and Peter Kinsella, St. Louis; Spontaneous Pneumothorax by Drs. Mark W. Wolcott, William A. Shaver, and William D. Jennings, Coral Gables, Fla.; The Diagnosis and Management of Pleural Disease by Drs. M. N. Atay, J. Lewis Yates, Harry V. Langeluttig, and Charles A. Brasher, Mt. Vernon, Mo.; Early Signs and Warnings of Coronary Disease by Dr. Edward Massie, St. Louis; Controversial Aspects of the Management of Sympathetic Coronary Atherosclerosis by Dr. Thomas M. Blake, Jackson, Miss.; Anomalous Vascular Patterns Found with Atrial Septal Defects by Dr. Robert H. LePere, San Antonio; Congenital or Acquired Absence or Hypoplasia of One Pulmonary Artery by Drs. Milton V. Davis, Maurice Adam, and Ben F. Mitchell, Jr., Dallas; and The Role of Angiography in the Management of Pulmonary Disease by Dr. Osler A. Abbott, Atlanta, Ga.

All physicians are cordially invited to attend.

Dr. James J. Moriarty,

Alexandria, has been named as chairman of the committee for the physically handicapped for the Chesapeake District of Civitan International.

Dr. George Stanley Mitchell, Jr.,

Newport News, has been elected president of the Peninsula Heart Association. Dr. John W. Massey is the retiring president. Dr. Walter S. Price, Newport News, and Dr. Robert E. Stout, Hampton, were named directors.

Medical Aspects of Sports.

The Second National Conference on the Medical Aspects of Sports sponsored by the American Medical Association, under the auspices of its Committee on Medical Aspects of Sports, will be held in Washington, D. C., at the Statler Hotel on November 27th. The Conference will immediately precede the annual Clinical Meeting of the Association, November 28-December 1.

The Conference will include papers, panels and discussions relating to training and conditioning, prevention of injuries, recognition referral and treatment of injuries, the psychology of sports participation and other subjects.

Those interested in receiving announcements concerning the Conference should address the Secretary, Committee on Medical Aspects of Sports, 535 North Dearborn, Chicago 10, Illinois.

Dr. Patricia R. Denton

Has resigned as director of the State's Mobile Psychiatric Clinic based in Richmond. She will be director of a recently opened mental hygiene clinic at Virginia Beach. Dr. Denton took on two jobs when she resigned as she was married the next day to Frederick T. Pearce, a research engineer with the National Aeronautics and Space Administration's Project Mercury at Langley Field.

Radioisotope Laboratory Completed.

The Petersburg General Hospital has completed its Radioisotope Laboratory and this is one of the most up-to-date units on the Eastern Seaboard. The Laboratory was made possible through the H. Ross Hinton Endowment Fund.

The American Thoracic Society

(Formerly American Trudeau Society), medical section of the National Tuberculosis Association, is soliciting abstracts of papers on all scientific aspects of tuberculosis and nontuberculous respiratory diseases for presentation at its annual meeting in Cincinnati, May 22-24, 1961. Abstracts must be in the hands of the program committee not later than January 7th. Rules governing the submission of abstracts may be obtained from Leon H. Schmidt, Ph.D., chairman medical sections committee, 1790 Broadway, New York 19.

Hospital Staff Appointments.

Staff appointments to the new Fairfax Hospital, which is scheduled to open early in 1961, have been made as follows: Anesthesiology, Dr. Heinz-Otto Silbersiepe, McLean; General Practice, Dr. Carl P. Parker, Jr., Falls Church; Internal Medicine, Dr. Thomas E. O'Brien, Falls Church; Obstetrics and Gynecology, Dr. Peter Soyster, McLean; Pathology, Dr. C. Barrie Cook, Fairfax; Pediatrics, Dr. Ardwin H. Barsanti, Annandale; Psychiatry, Dr. Robert B. Neu, Arlington; and Surgery, Dr. Gerard J. Inguagiato, Falls Church.

Chiefs of Sections are: General Surgery, Dr. Lloyd B. Burke, Arlington; Neuro-Surgery, Dr. Garrett M. Swain, Falls Church; Ophthalmology, Dr. Robert L. Norment, Arlington; Oral Surgery, Dr. Albert D. Alexander, Falls Church; Orthopedic Surgery, Dr. Allen M. Ferry, Arlington; Otolaryngology, Dr. Henry T. Kulesher, Falls Church; and Urology, Dr. Michael A. Puzak, Arlington.

More than 200 local physicians and dentists have submitted their applications to practice in the new six million dollar hospital.

Studies on Colon and Rectal Carcinoma.

The cooperation of physicians is requested in studies on colon and rectal carcinoma recently initiated at the Clinical Center, National Institutes of Health, Bethesda, Maryland. Encouraging results in the treatment of gastrointestinal carcinoma have been reported using the pyrimidine analogues 5-fluorouracil and 5-fluorodeoxyuridine. However, other reports have raised the question of their effectiveness. The Chemotherapy Service is conducting studies on these agents and patients can be accepted if they are ambulatory, have normal leukocyte count, renal and hepatic function and if they have metastases in the lung, peripheral lymph nodes (such as supraclavicular or cervical) or skin.

Physicians who wish to have their patients considered for study at the National Cancer Institute may write or call: Dr. Clyde O. Brindley or Dr. Paul P. Carbone, National Cancer Institute, Bethesda 14, Md. (Phone—OLiver 6-400, Ext. 4251)

Dr. Milton H. Kibbe,

Clinical director of the Lynchburg Training School and Hospital since June 1958, has been appointed superintendent of the Petersburg Training School, effective October 1st.

Ophthalmic Surgery.

The Department of Ophthalmology, Emory University School of Medicine, will sponsor a postgraduate course in ophthalmic surgery, December 1-2, in the auditorium of the Grady Memorial Hospital, Atlanta, Ga. Guest lecturers will be Dr. Frank T. Costenbader, Senior Attending and Chairman of the Department of Ophthalmology, Children's Hospital and Senior Attending Ophthalmologist of Washington Hospital Center, Washington, D. C.; Dr. John M. McLean, Professor of Ophthalmology, Cornell University School of Medicine, New York; and Dr. Harold G. Scheie, Professor of Ophthalmology, University of Pennsylvania School of Medicine, Philadelphia.

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Obituaries . . . .

Dr. Emmett Herman Terrell,

Prominent Richmond physician, died September 7th at the age of eighty-two, having been in ill health for several years. He was a graduate of the Medical College of Virginia in 1900 and was a member of its faculty for forty-six years. When he retired he was made emeritus professor of clinical proctology. Dr. Terrell served as president of the American Proctologic Society in 1923 and was chairman of the section on gastroenterology and proctology of the American Medical Association in 1944. He was also a past president of the Richmond Academy of Medicine and had been a member of The Medical Society of Virginia since 1901.

Dr. Terrell was a member of Phi Beta Kappa and Omega Upsilon Phi. He was awarded the College of William and Mary Alumni Medallion for recognized eminence in his specialty of proctology. He was a charter member of the Richmond Rotary Club.

His wife and two daughters survive him.

Dr. Adrian Lambeth Carson, Jr.,

Director of local health services for the State Department of Health, died September 16th. He was fifty-nine years of age and a graduate of the Medical College of Virginia in 1925. Dr. Carson had been with the health department since 1931. He was director of the Maternal and Child Health Bureau from 1940 to 1948, and director of the division of specialized medical services from 1948 to 1952, when he was made director of local health services. Dr. Carson was assistant clinical professor of obstetrics and gynecology at the Medical College of Virginia and had served as consultant in recent years to smaller hospitals associated with the College.

Dr. Carson was a diplomat of the American Board of Preventive Medicine and Public Health and a fellow of the American Academy of Obstetrics. He was president of the State Nutrition Association and had served as president of the Virginia Obstetrical and Gynecological Society. He had been a member of The Medical Society of Virginia since 1932.

His wife and a son survive him.

Dr. Handy.

Dr. Stafford Odell Handy, an esteemed member of The Lynchburg Academy of Medicine, specializing in roentgenology in Lynchburg for thirty years, died in the Medical College of Virginia Hospital, Richmond, Virginia, March 26, 1960. He had been ill since July 1959, and was burned severely one month before his death.

Dr. Handy was born at Stuart, June 1, 1903. He received his pre-medical education at the University of Richmond, and graduated from the Medical College of Virginia in 1928. Dr. Handy served his internship at the Medical College of Virginia Hospital 1928-1929. He came to Lynchburg in 1929 and was associated in the practice of roentgenology with the late Dr. Hunter B. Spencer. He served on the active staff of the Virginia Baptist, The Marshall Lodge Memorial, and Lynchburg General Hospitals during his entire period of practice.

He was a member and past president of The Lynchburg Academy of Medicine. He also was a member of The Medical Society of Virginia, the American Medical Association, and the American Radiological Society. Dr. Handy was a diplomate of the American Board of Radiology.

Dr. Handy's devotion to his work was second only to his devotion to his family. His physical handicaps during his later years were the result of his unselfish service, and constant availability when called upon.

THEREFORE BE IT RESOLVED That the members of the Lynchburg Academy of Medicine mourn Dr. Handy's passing and extend their deepest sympathy to his family.

BE IT FURTHER RESOLVED That a copy of this resolution be sent to his family, that a copy be spread upon the minutes of the Lynchburg Academy of Medicine and that a copy be sent to the Virginia Medical Monthly for publication.

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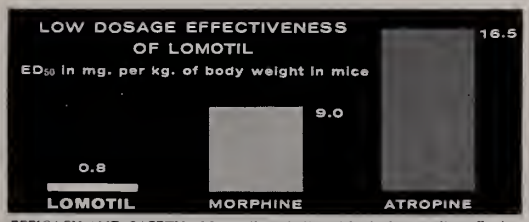

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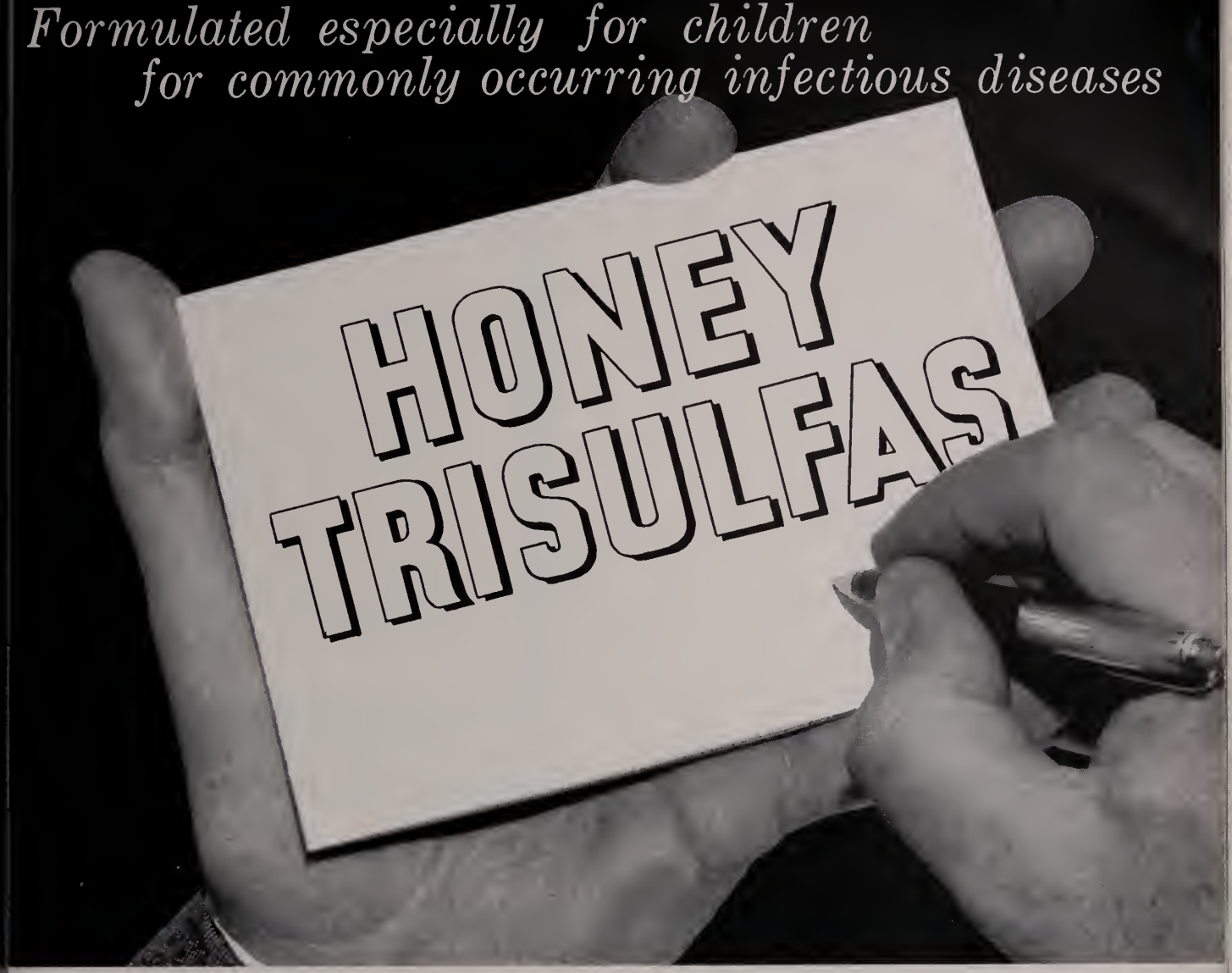

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1. Shore, P.D., Flippin, H.F., and Reinhold, J.G., Am. J. M. Sc., 218:80 (July) 1949.
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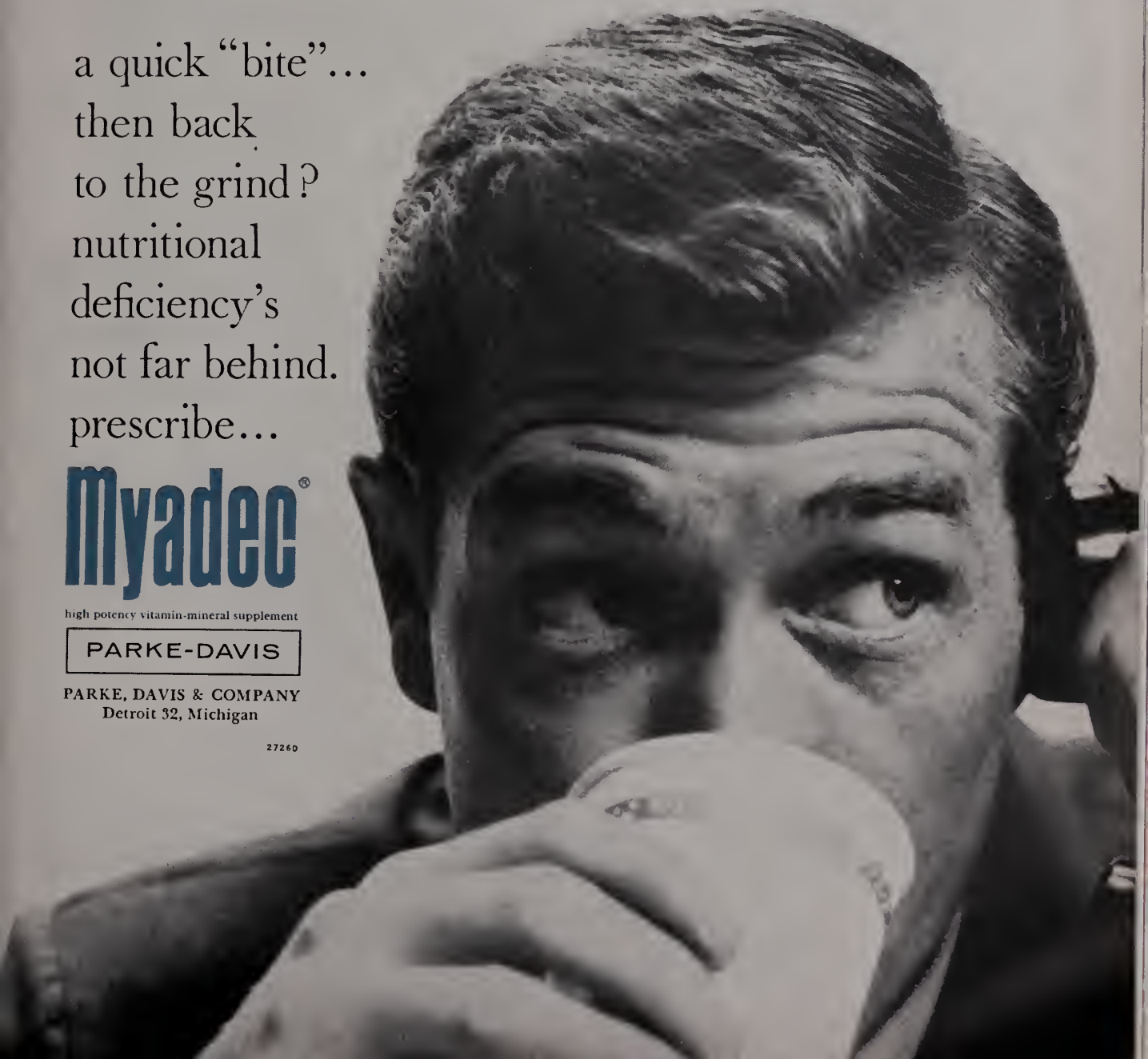

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REFERENCES: 1. Ford, R. V., and Nickell, J.: Ant. Med. & Clin. Ther. 6:461, 1959. 2. Fuchs, M., and Mallin, S. R.: Int. Rec. Med. 172:438, 1959. 3. Ford, R. V.: Int. Rec. Med. 172:434, 1959.

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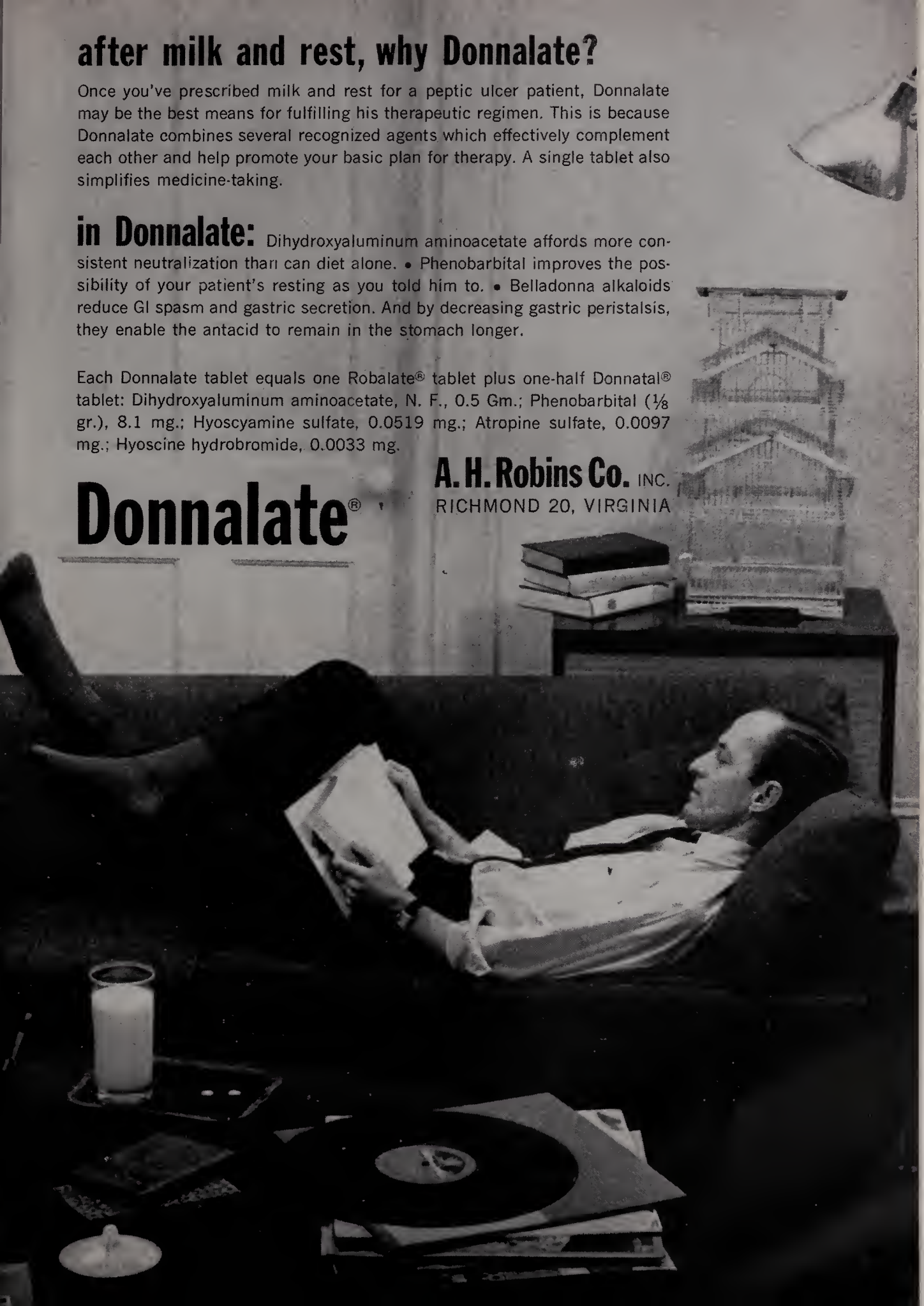

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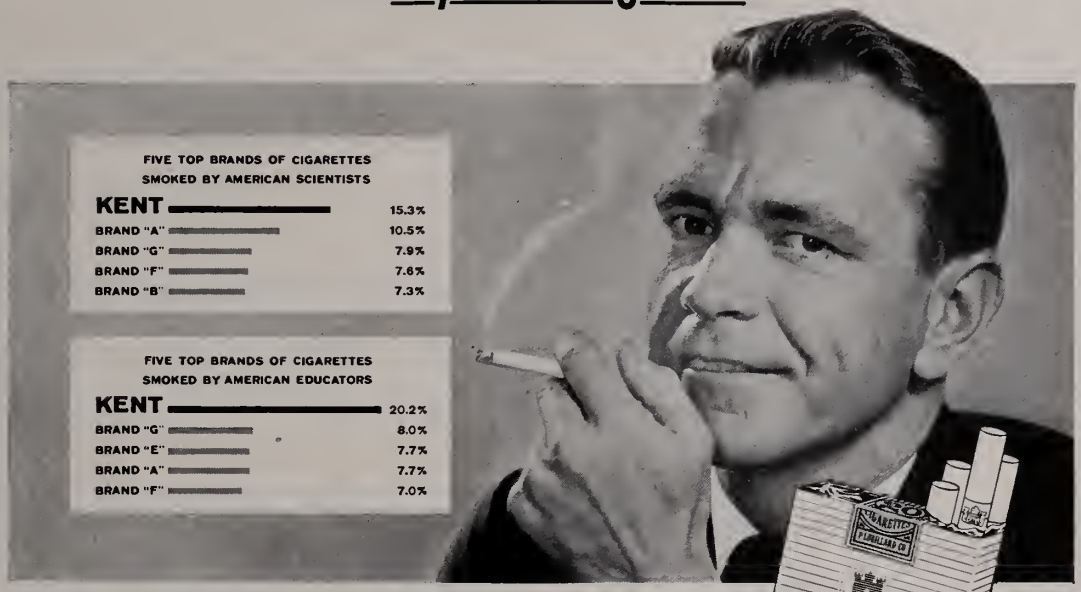

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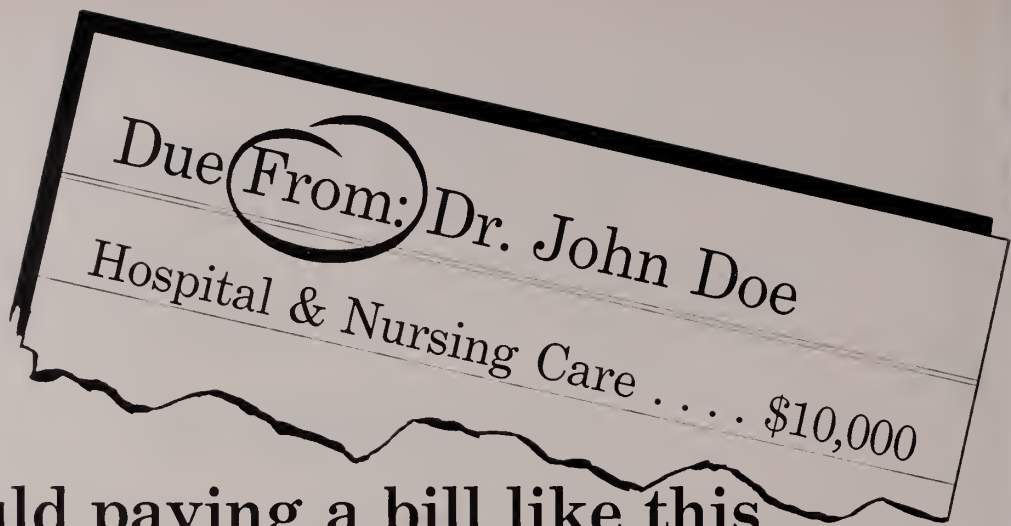

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1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

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Kestler, O.: Conservative Management of "Low Back Syndrome", J.A.M.A. 172: 2039 (April 30) 1960.

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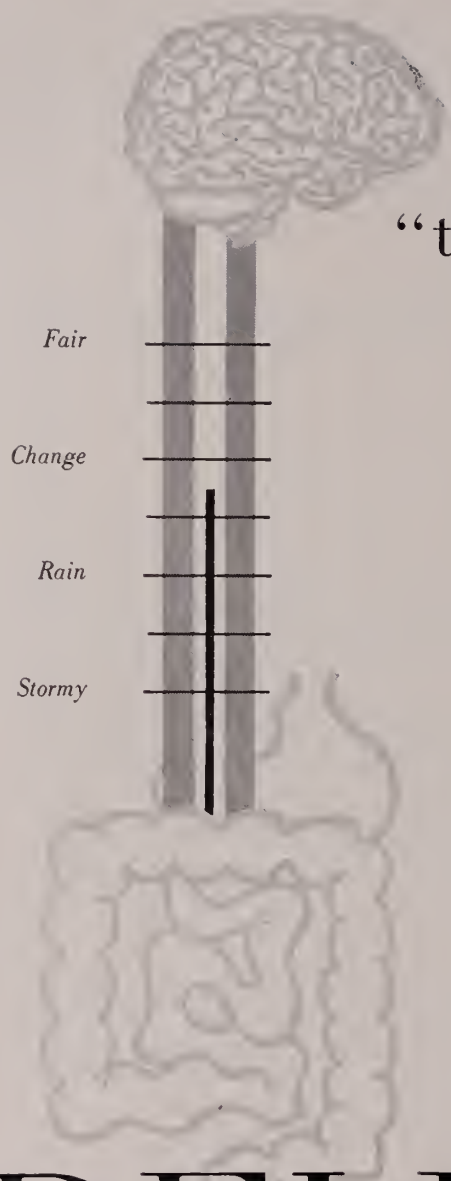

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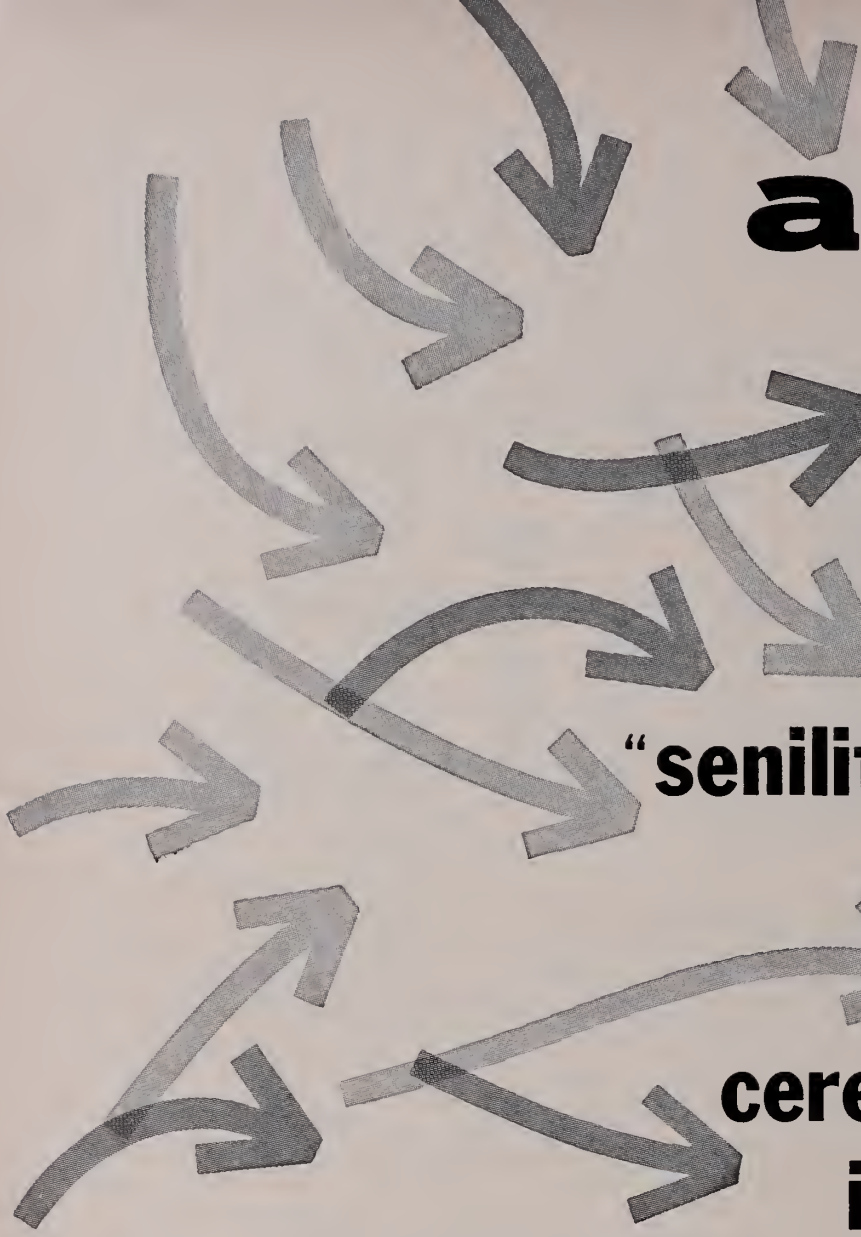

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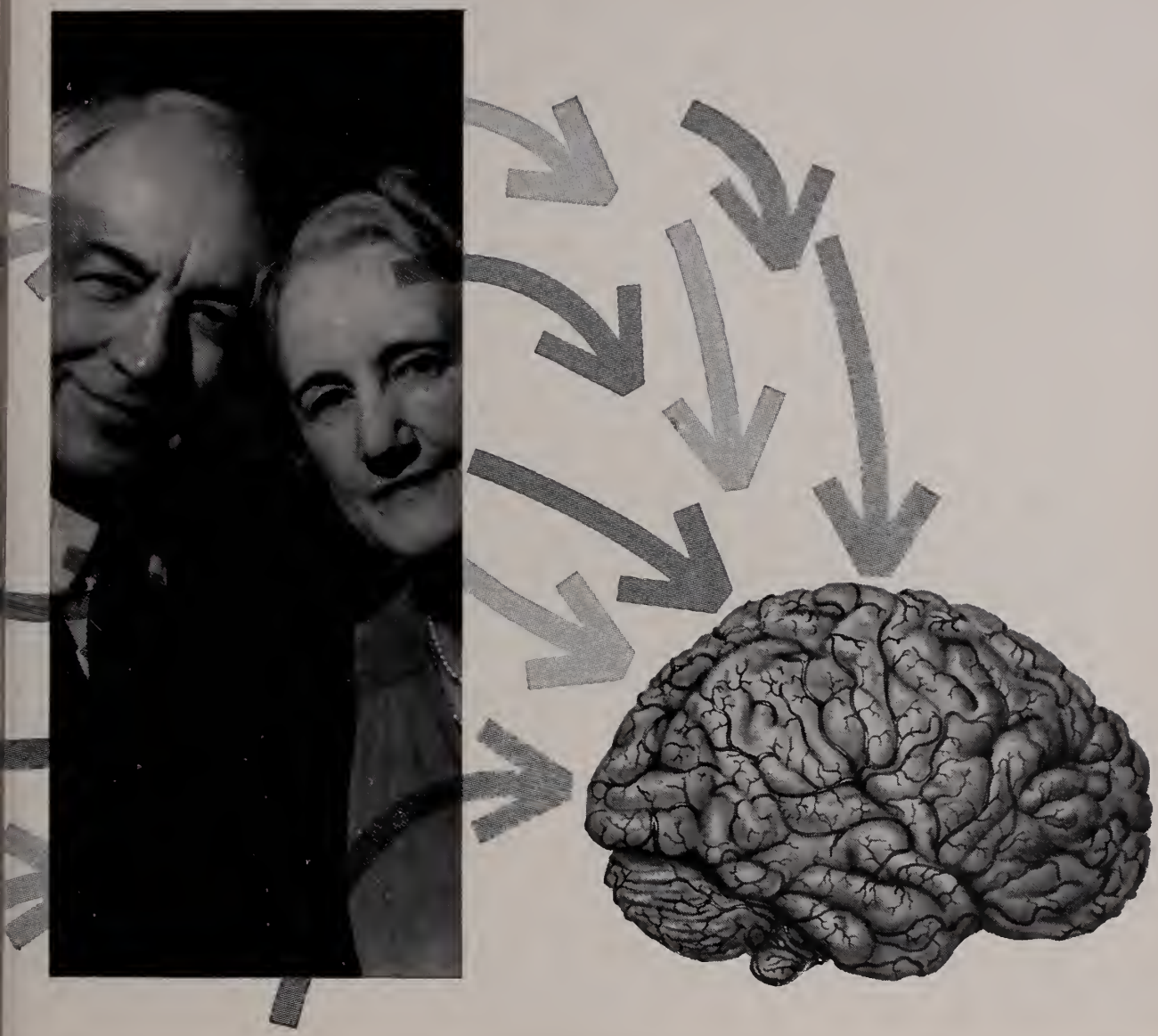

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references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

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...and for humans with CLOGGED-UP NOSES...

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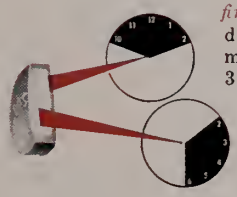

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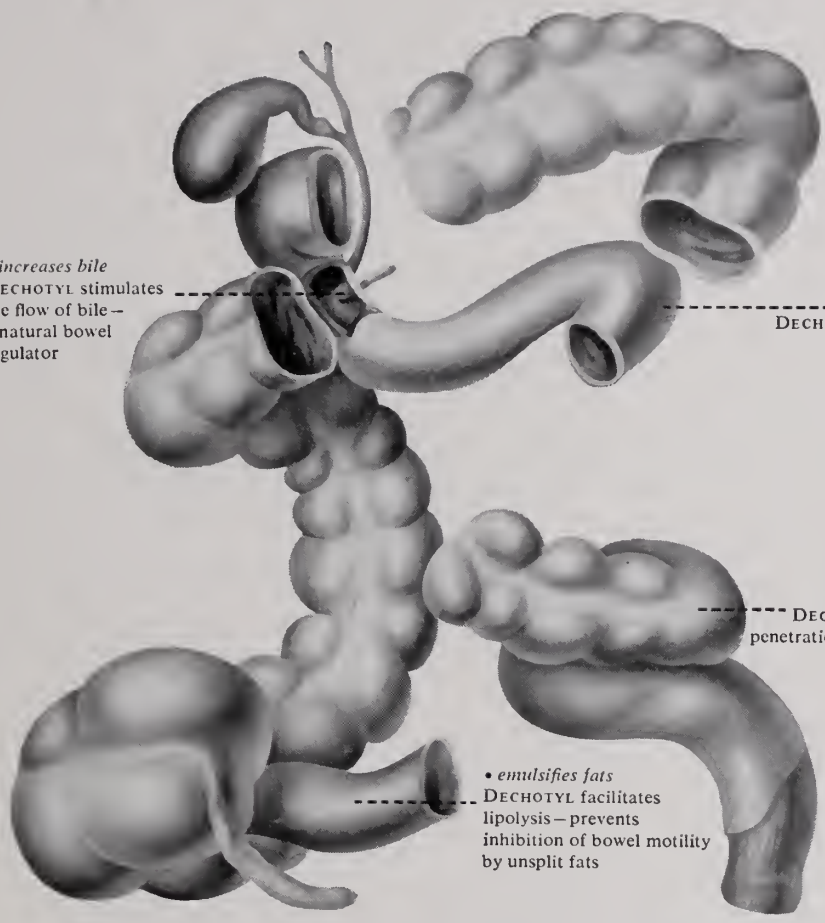

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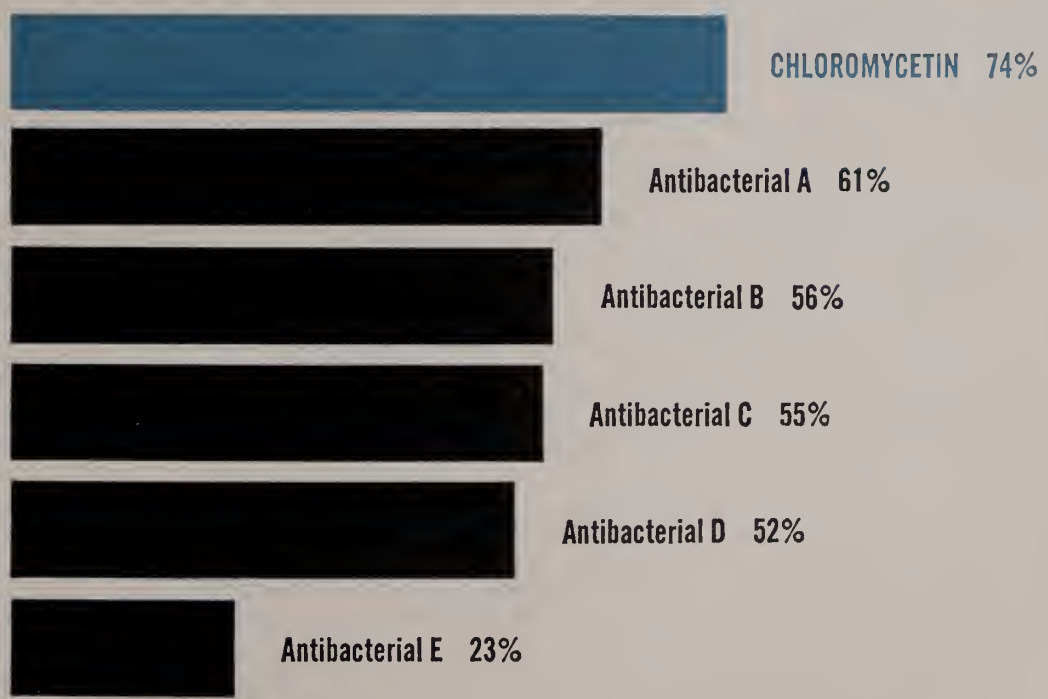

*Adapted from Goodier & Parry[1]

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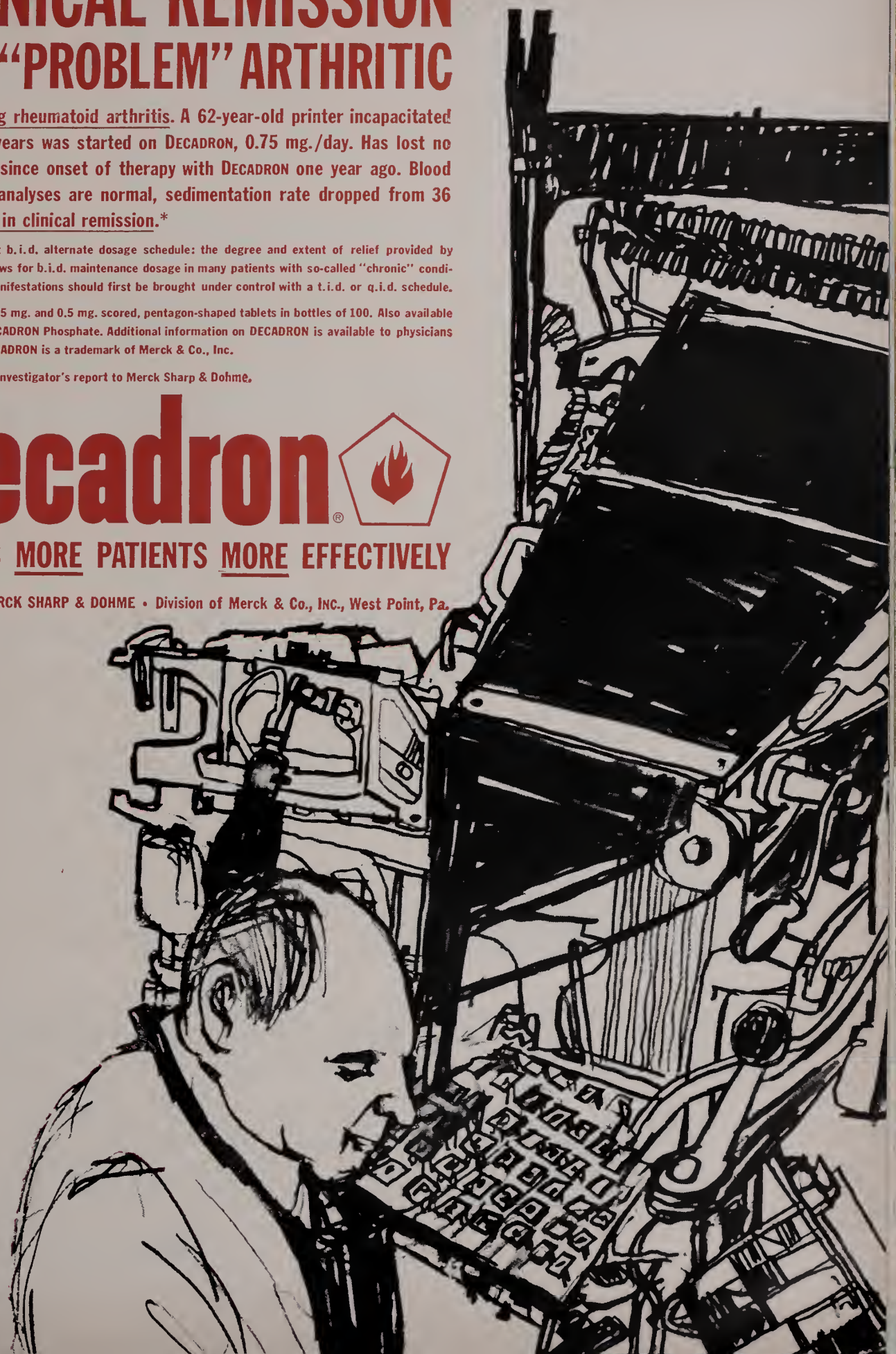

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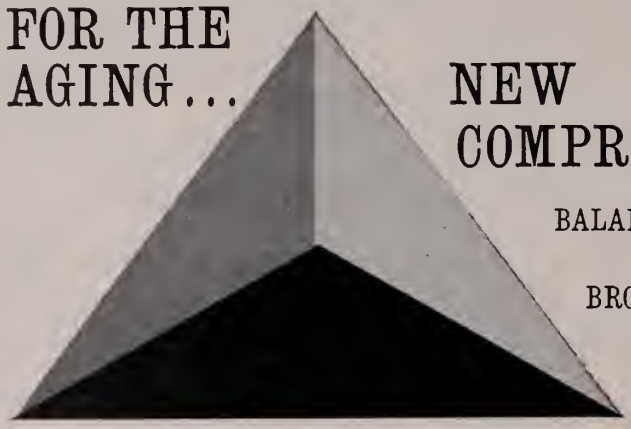

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BALANCED HORMONE SUPPLEMENTATION
▲
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1 small capsule every morning

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Geriatric Vitamins-Minerals-Hormones-d-Amphetamine Lederle

Each capsule contains: Ethinyl Estradiol 0.01 mg. • Methyl Testosterone 2.5 mg. • d-Amphetamine Sulfate 2.5 mg. • Vitamin A (Acetate) 5,000 U.S.P. Units • Vitamin D 500 U.S.P. Units • Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate 1/15 U.S.P. Unit (Oral) • Thiamine Mononitrate (B_1) 5 mg. • Riboflavin (B_2) 5 mg. • Niacinamide 15 mg. • Pyridoxine HCl (B_6) 0.5 mg. • Calcium Pantothenate 5 mg. • Choline Bitartrate 25 mg. • Inositol 25 mg. • Ascorbic Acid (C) as Calcium Ascorbate 50 mg. • I-Lysine Monohydrochloride 25 mg. • Vitamin E (Tocopherol Acid Succinate) 10 Int. Units • Rutin 12.5 mg. • Ferrous Fumarate (Elemental iron, 10 mg.) 30.4 mg. • Iodine (as KI) 0.1 mg. • Calcium (as $CaHPO_4$) 35 mg. • Phosphorus (as $CaHPO_4$) 27 mg. • Fluorine (as CaF_2) 0.1 mg. • Copper (as CuO) 1 mg. • Potassium (as K_2SO_4) 5 mg. • Manganese (as MnO_2) 1 mg. • Zinc (as ZnO) 0.5 mg. • Magnesium (MgO) 1 mg. • Boron (as $Na_2B_4O_7.10H_2O$) 0.1 mg. Bottles of 100, 1000.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

NEW UNEXCELLED TASTE

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SYRUP OF CHLORAL HYDRATE

NEW RALDRATE NOW SOLVES THE PROBLEM OF TASTE RESISTANCE TO CHLORAL-HYDRATE

10 Grains (U.S.P. Dose) of palatable lime flavored chloral-hydrate syrup in each teaspoonful

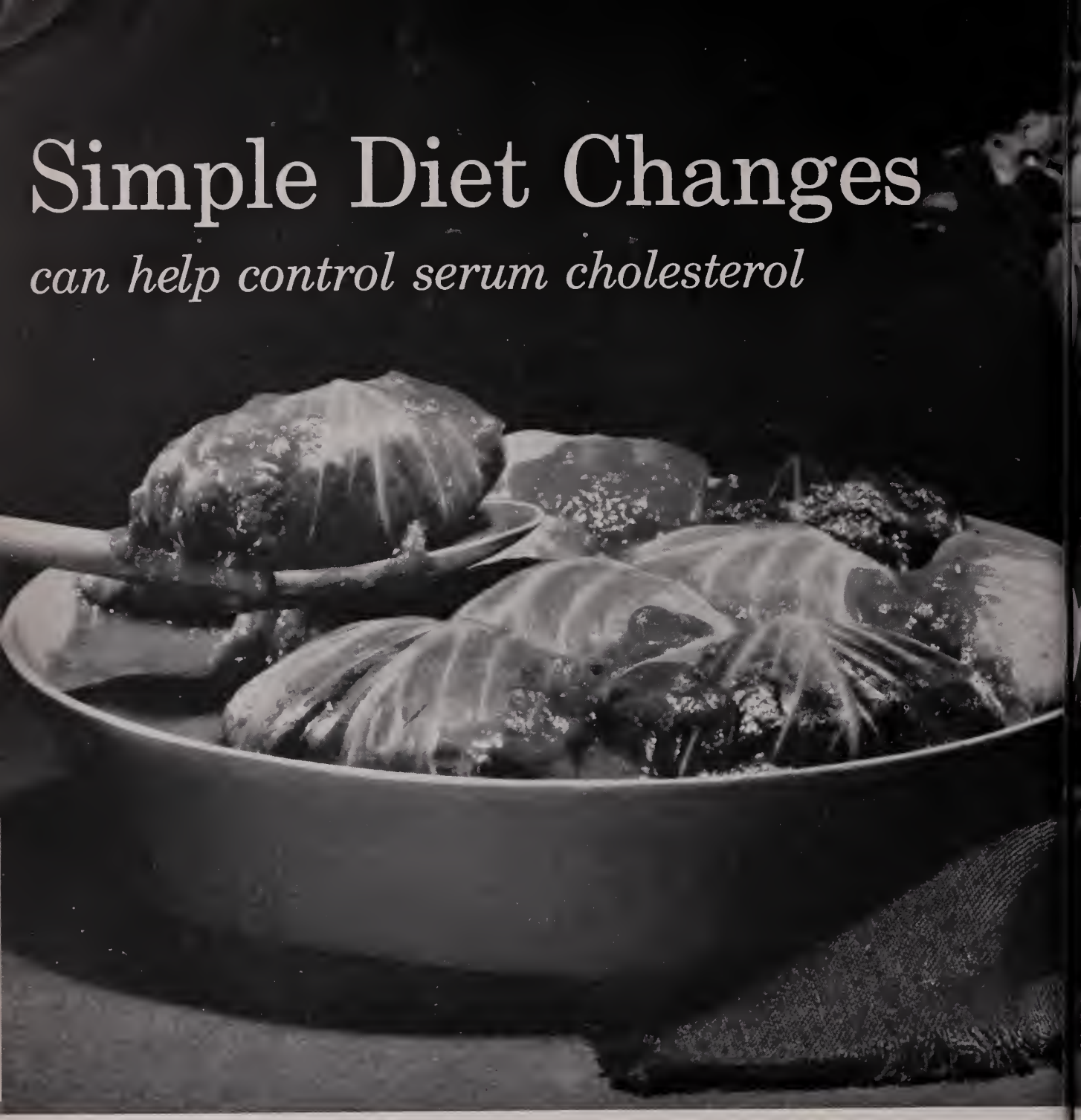
RAPID SEDATION WITHOUT HANGOVER

JONES and VAUGHAN, Inc. RICHMOND 26, VA.

J. and V.

Simple Diet Changes

can help control serum cholesterol



Fortunately for the patient's morale — often all that is necessary when you want to prescribe a regimen to reduce serum cholesterol is to . . .

1. control the amount of calories and the type of dietary fat . . . and
2. make a simple modification in the method of food preparation, using poly-unsaturated vegetable oil in place of saturated fats

Obviously, in any special diet, the fewer required changes in the patient's eating habits, the more likelihood there is that the patient will adhere to the prescribed diet.

After adjusting total fat and calorie intake, the simple replacement of *saturated* fats (those used at the table and in cooking) with *poly*-unsaturated Wesson makes possible a most subtle dietary change, yet conforms completely to therapeutic requirements.

Uniformity you can depend on. Wesson has a poly-unsaturated content better than 50%. Only the lightest cottonseed oils of high iodine number are selected for Wesson and no significant variations in standards are permitted in the 22 exacting specifications required before bottling.

Wesson satisfies the most exacting appetites. To be effective, a diet must be *eaten* by the patient.

The majority of housewives prefer Wesson particularly by the criteria of odor, flavor (blandness) and lightness of color. (Substantiated by sales leadership for 59 years and reconfirmed by recent tests against the next leading brand with brand identification removed, among a national probability sample.)

Poly-unsaturated Wesson is unsurpassed by any readily available brand, where a vegetable (salad) oil is medically recommended for a cholesterol depressant regimen.

WESSON'S IMPORTANT CONSTITUENTS

Wesson is 100% cottonseed oil . . . winterized and of selected quality	
Linoleic acid glycerides (poly-unsaturated)	50-55%
Oleic acid glycerides (mono-unsaturated)	16-20%
Total unsaturated	70-75%
Palmitic, stearic and myristic glycerides (saturated)	25-30%
Phytosterol (Predominantly beta sitosterol)	0.3-0.5%
Total tocopherols	0.09-0.12%
Never hydrogenated—completely salt free	

Free Wesson recipes for delicious main dishes, desserts and salad dressings are available for your patients. Request quantity needed from The Wesson People, Dept. N, 210 Baronne St., New Orleans 12, La.

in arthritis and allied disorders

Butazolidin®
brand of phenylbutazone
Geigy

Proved by a Decade of Experience
Confirmed by 1700 Published Reports
Attested by World-Wide Usage

Since its anti-inflammatory properties were first noted in Geigy laboratories 10 years ago, time and experience have steadily fortified the position of Butazolidin as a leading nonhormonal anti-arthritic agent. Indicated in both chronic and acute forms of arthritis, Butazolidin is noted for its striking effectiveness in relieving pain, increasing mobility and halting inflammatory change.

Butazolidin®, brand of phenylbutazone: Red, sugar-coated tablets of 100 mg. Butazolidin® Alka: Orange and white capsules containing Butazolidin 100 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

Geigy, Ardsley, New York

162-60

SALUTENSIN™

Hydroflumethiazide • Reserpine • Protoveratrine A

An integrated multi-therapeutic antihypertensive, that combines in balanced proportions three clinically proven antihypertensives.

In each **SALUTENSIN** Tablet:

Saluron® (hydroflumethiazide)—
a saluretic-antihypertensive ..... 50 mg.

Reserpine—a tranquilizing drug with
peripheral vasorelaxant effects ..... 0.125 mg.

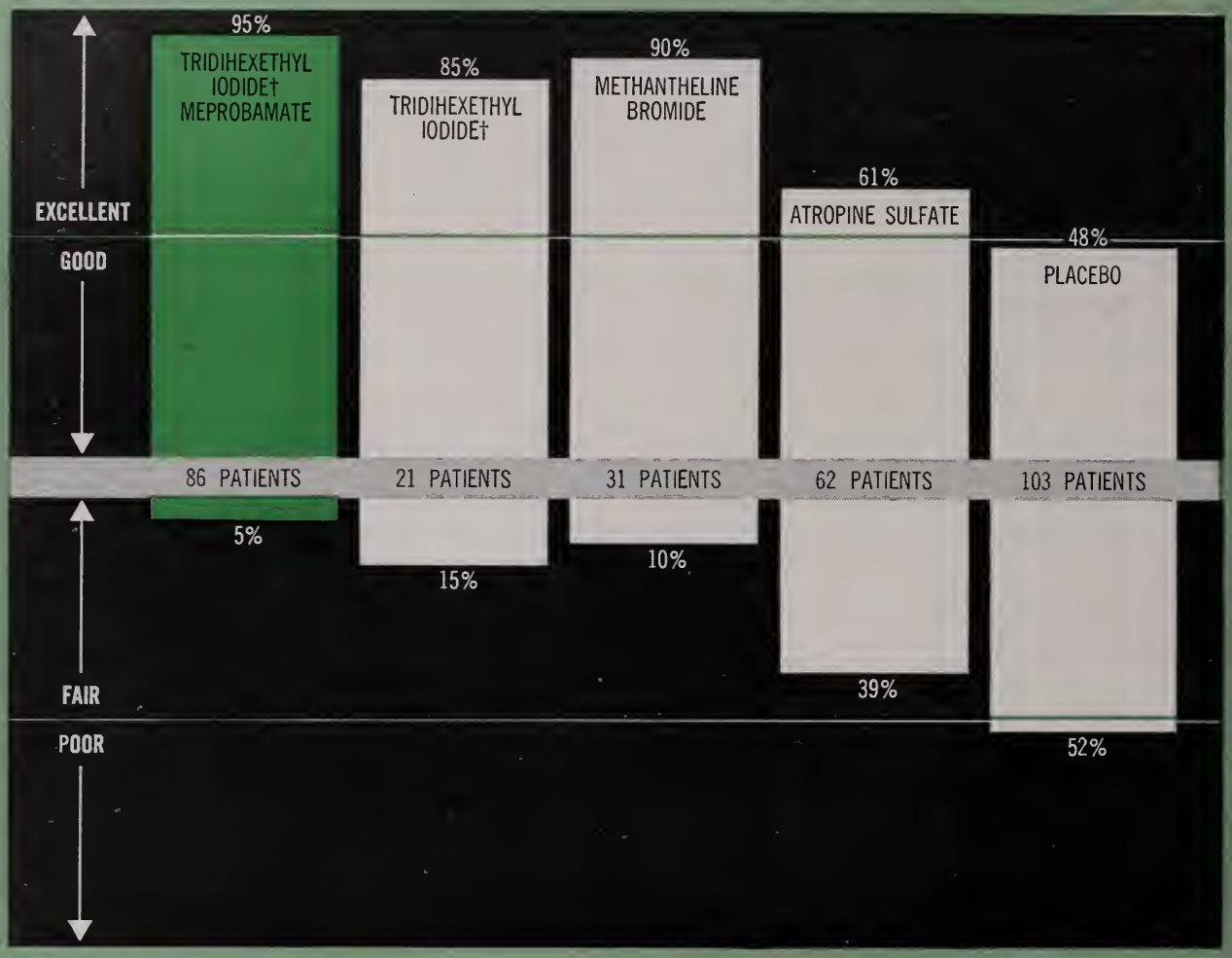
Protoveratrine A—a centrally mediated
vasorelaxant ..... 0.2 mg.

Comprehensive information on dosage and precautions in official package circular or available on request.

BRISTOL LABORATORIES • Syracuse, New York

clinically proven efficacy.

in relieving tension . . . curbing hypermotility and excessive secretion in G. I. disorders



PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

Meprobamate—widely accepted tranquilizer

and

PATHILON tridihexethyl chloride—anticholinergic noted for its effect on motility and gastrointestinal secretion with few unwanted side effects.

Contraindications: glaucoma, pyloric obstruction, and obstruction of the urinary bladder neck.

Two available dosage strengths permit adjusting therapy to the G.I. disorder and degree of associated tension.

Where a minimal meprobamate effect is preferred . . .
PATHIBAMATE-200 Tablets: 200 mg. of meprobamate; 25 mg. of PATHILON

Where a full meprobamate effect is preferred . . .
PATHIBAMATE-400 Tablets: 400 mg. of meprobamate; 25 mg. of PATHILON

Dosage: Average oral adult dose is 1 tablet t.i.d. at mealtime and 2 tablets at bedtime.

Pathibamate® 400 200

meprobamate with PATHILON® tridihexethyl chloride Lederle

clinically proven safety

The efficacy of **PATHIBAMATE** has been confirmed clinically in **duodenal ulcer, gastric ulcer, intestinal colic, spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis** with gastrointestinal symptoms, and **gastric hypermotility.**

Pictured are the results obtained with the PATHILON (tridihexethyl iodide)–meprobamate combination† in a double-blind study of 303 ulcer patients, extending over a period of 36 months.* They clearly demonstrate the efficacy of **PATHIBAMATE** in controlling the symptoms.

SIDE EFFECTS	TRIDIHEXETHYL IODIDE† MEPROBAMATE	TRIDIHEXETHYL IODIDE†	METHANTHELINE BROMIDE	ATROPINE SULFATE	PLACEBO
DRY MOUTH	1%	5%	72%	46%	5%
STOMATITIS	1%	0%	28%	14%	0%
VISUAL DISTURBANCES	0%	0%	50%	34%	1%
URINARY RETENTION	0%	0%	18%	11%	1%
DROWSINESS	20%	0%	0%	0%	0%
COMPLICATIONS OR SURGERY					
HEMORRHAGE	0%	9%	3%	9%	10%
PERFORATION	0%	0%	0%	6%	0%
OPERATION	0%	5%	5%	14%	2%
RECURRENCES					
NONE	28%	23%	25%	17%	26%
FEWER AND MILDER	67%	62%	52%	37%	24%
SAME OR MORE	5%	15%	23%	46%	50%

*Atwater, J. S., and Carson, J. M.: Therapeutic Principles in Management of Peptic Ulcer. Am. J. Digest. Dis. 4:1055 (Dec.) 1959.

†PATHILON is now supplied as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could distort the results of certain thyroid function tests.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

control the tension — treat the trauma

for acute
upper respiratory infections

Tetrex®

capsules

The Original Tetracycline Phosphate Complex

U.S. PAT. NO. 2,791,609

effective control of pathogens...with an unsurpassed record of safety and tolerance

BRISTOL LABORATORIES, SYRACUSE, NEW YORK
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BRISTOL ™

SUPPLY: TETREX Capsules — tetracycline phosphate complex — each equivalent to 250 mg. tetracycline HCl activity. Bottles of 16 and 100.

TETREX Syrup — tetracycline (ammonium polyphosphate buffered) syrup — equivalent to 125 mg. tetracycline HCl activity per 5 ml. teaspoonful. Bottles of 2 fl. oz. and 1 pint.

You see an improvement within a few days
Thanks to your prompt treatment and the smooth action of Deprol, her depression is relieved and her anxiety and tension calmed — *often in a few days.* She eats well, sleeps well and soon returns to her normal activities.

Lifts depression...as it calms anxiety!

Smooth, balanced action lifts depression as it calms anxiety...rapidly and safely

Balances the mood — no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient — *they often aggravate anxiety and tension.*

And although amphetamine-barbiturate combinations may counteract excessive stimulation — *they often deepen depression.*

In contrast to such "seesaw" effects, Deprol's smooth, *balanced* action lifts depression as it calms anxiety — both at the same time.

Acts swiftly — the patient often feels better, sleeps better, within a few days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly — often within a few days. Thus, the expense to the patient of long-term drug therapy can be avoided.

Acts safely — no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function — frequently reported with other antidepressant drugs.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate. **Supplied:** Bottles of 50 light-pink, scored tablets. Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES / *Cranbury, N. J.*

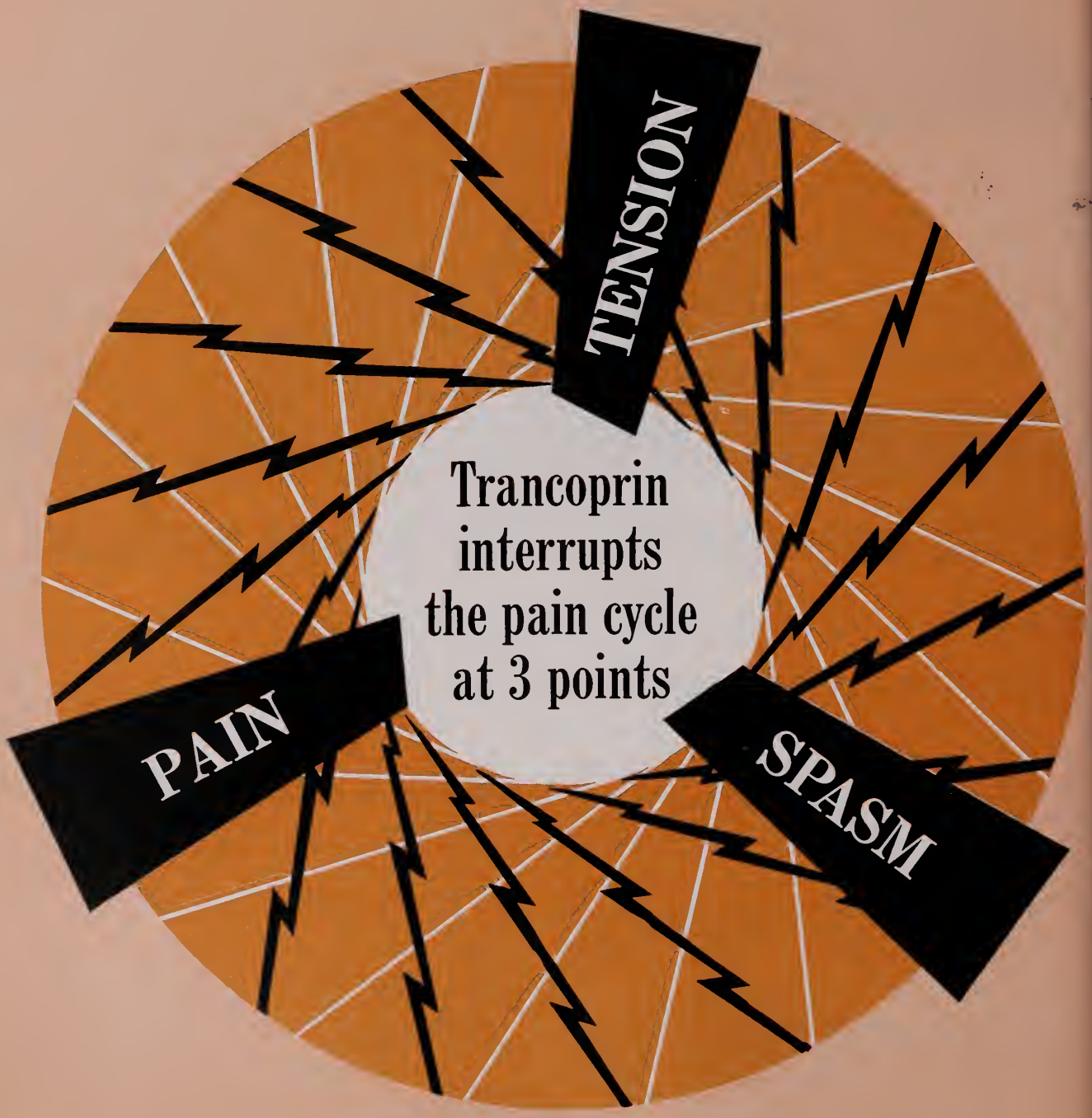
CD-2839

announcing...

Trancoprin®

acetylsalicylic acid (300 mg.) and chlormezanone (50 mg.)

Tablets



a broad spectrum non-narcotic analgesic

Trancoprin, a new analgesic, not only raises the pain perception threshold but, through its chlormezanone component, also relaxes skeletal muscle spasm[1-6] and quiets the psyche.[2,3-5,7]

The effectiveness of Trancoprin has been demonstrated clinically[8] in a number of patients with a wide variety of painful disorders ranging from headache, dysmenorrhea and lumbago to arthritis and sciatica. In a series of 862 patients,[8] Trancoprin brought excellent or good relief of pain to 88 per cent of the group. In another series,[9] Trancoprin was administered in an industrial dispensary to 61 patients with headache, bursitis, neuritis or arthritis. The excellent results obtained prompted the prediction that Trancoprin "... will prove a valuable and safe drug for the industrial physician."[9]

Exceptionally Safe

No serious side effects have been encountered with Trancoprin. Of 923 patients treated with Trancoprin, only 22 (2.4 per cent) experienced any side effects.[8,9] In every instance, these reactions, which included temporary gastric distress, weakness or sedation, were mild and easily reversed.

Indications

Trancoprin is recommended for more comprehensive control of the pain complex (pain → tension → spasm) in those disorders in which tension and spasm are complicating factors, such as: headaches, including tension headaches / premenstrual tension and dysmenorrhea / low back pain, sciatica, lumbago / musculoskeletal pain associated with strains or sprains, myositis, fibrositis, bursitis, trauma, disc syndrome and myalgia / arthritis (rheumatoid or hypertrophic) / torticollis / neuralgia.

Dosage

The usual adult dosage is 2 Trancoprin tablets three or four times daily. The dosage for children from 5 to 12 years of age is 1 tablet three or four times daily. Trancoprin is so well tolerated that it may be taken on an empty stomach for quickest effect. The relief of symptoms is apparent in from fifteen to thirty minutes after administration and may last up to six hours or longer.

How Supplied

Each Trancoprin tablet contains 300 mg. (5 grains) of acetylsalicylic acid and 50 mg. of chlormezanone [Trancopal® brand]. Bottles of 100 and 1000.

Trancoprin Tablets / non-narcotic analgesic

References: 1. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 2. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960. 5. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 6. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 7. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 8. Collective Study, Department of Medical Research, Winthrop Laboratories. 9. Hergesheimer, L. H.: An evaluation of a muscle relaxant (Trancopal) alone and with aspirin (Trancoprin) in an industrial medical practice, to be submitted.

Winthrop LABORATORIES, New York 18, N. Y.

Trancoprin and Trancopal (brand of chlormezanone) trademarks reg. U. S. Pat. Off.

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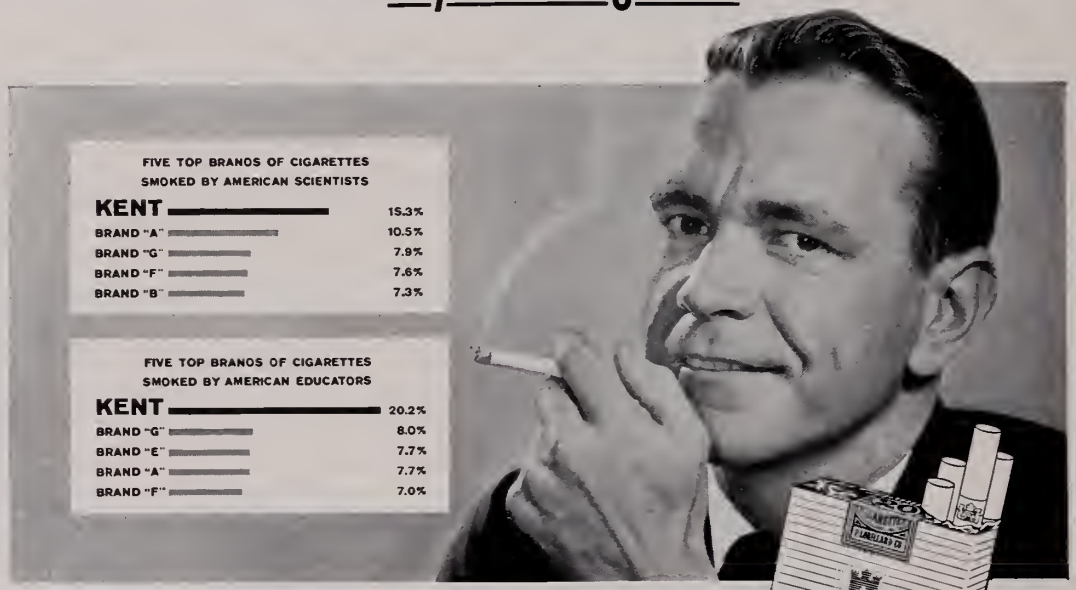
KENT with the MICRONITE FILTER IS SMOKED BY MORE SCIENTISTS and EDUCATORS

than any other cigarette!*



KING-SIZE, REGULAR-SIZE OR CRUSH-PROOF BOX

THIS does not constitute a professional endorsement of Kent. But these men, like millions of other Kent smokers, smoke for pleasure, and choose their cigarette accordingly.

The rich pleasure of smoking Kent comes from the flavor of the world's finest natural tobaccos, and the free and easy draw of Kent's famous Micronite Filter.

If you would like the booklet, "The Story of Kent", for your own use, write to: P. Lorillard Company—Research Department, 200 East 42nd Street, New York 17, New York.

For good smoking taste, it makes good sense to smoke KENT

* Results of a continuing study of cigarette preferences, conducted by O'Brien Sherwood Associates, N.Y., N.Y.

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UNSURPASSED "GENERAL-PURPOSE" CORTICOSTEROID . . .

Aristocort®

Triamcinolone LEDERLE

OUTSTANDING FOR "SPECIAL-PURPOSE" THERAPY

Lederle

Aristocort

Triamcinolone has long since proved its unsurpassed efficacy and relative safety in the therapy of *rheumatoid arthritis, inflammatory and allergic dermatoses, bronchial asthma,* and all other conditions in which corticosteroids are indicated. But ARISTOCORT has also opened up new areas of therapy for selected patients who otherwise could not be given corticosteroids. Medicine is now in an era of "special-purpose" steroids.[1]

One outstanding advantage of triamcinolone is that it rarely produces edema and sodium retention.[1,2]

The clinical importance of this property cannot be overemphasized in treating certain types of patients. McGavack and associates[3] have reported the beneficial results with ARISTOCORT in patients with existing or impending cardiac failure, and those with obesity associated with lymphedema. Triamcinolone, in contrast to most other steroids, is not contraindicated in the presence of edema or impending cardiac decompensation.[3]

Hollander[1] points out the superiority of triamcinolone in not causing mental stimulation, increased appetite and weight gain, compared to other steroids which produce these effects in varying degrees. And McGavack,[2] in a comparative tabulation of steroid side effects, indicates that triamcinolone does not produce the increased appetite, insomnia, and psychic disturbances associated with other newer steroids.

ARISTOCORT can thus be advantageous for patients requiring corticosteroids whose appetites should not be stimulated, and for those who are already overweight or should not gain weight. Likewise, ARISTOCORT is suitable for the many patients with emotional and nervous disorders who should not be subjected to psychic stimulation. Furthermore, ARISTOCORT Triamcinolone, in effective doses, showed a low incidence of side reactions and is a steroid of choice for treating the older patient in whom salt and water retention may cause serious damage.[2]

References: 1. Hollander, J. L.: *J.A.M.A.* 172:306 (Jan. 23) 1960. 2. McGavack, T. H.: *Nebraska M. J.* 44:377 (Aug.) 1959. 3. McGavack, T. H.; Kao, K. Y. T.; Leake, D. A.; Bauer, H. G., and Berger, H. E.: *Am. J. M. Sc.* 236:720 (Dec.) 1958.

Precautions: Collateral hormonal effects generally associated with corticosteroids may be induced. These include Cushingoid manifestations and muscle weakness. However, sodium and potassium retention, edema, weight gain, psychic aberration and hypertension are exceedingly rare. Dosage should be individualized and kept at the lowest level needed to control symptoms. It should not exceed 36 mg. daily without potassium supplementation. Drug should not be withdrawn abruptly. Contraindicated in herpes simplex and chicken pox.

Supplied: Scored tablets—1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white).

Lederle

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

"...extraordinarily effective diuretic..."[1]

Efficacy and expanding clinical use are making Naturetin the diuretic of choice in edema and hypertension. It maintains a favorable urinary sodium-potassium excretion ratio, retains a balanced electrolyte pattern, and causes a relatively small increase in the urinary pH.[2] More potent than other diuretics, Naturetin usually provides 18-hour diuretic action with just a single 5 mg. tablet per day — economical, once-a-day dosage for the patient. Naturetin c̄ K — for added protection in those special conditions predisposing to hypokalemia and for patients on long-term therapy.

Supplied: Naturetin Tablets, 5 mg., scored, and 2.5 mg. Naturetin c̄ K (5 c̄ 500) Tablets, capsule-shaped, containing 5 mg. benzydroflumethiazide and 500 mg. potassium chloride. Naturetin c̄ K (2.5 c̄ 500) Tablets, capsule-shaped, containing 2.5 mg. benzydroflumethiazide and 500 mg. potassium chloride. For complete information consult package circular or write Professional Service Dept., Squibb, 745 Fifth Avenue, New York 22, N. Y.

References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy 5:60 (Feb.) 1960. 2. Ford, R. V.: Current Therap. Res. 2:92 (Mar.) 1960.

Naturetin Squibb Benzydroflumethiazide **Naturetin c̄ K** Squibb Benzydroflumethiazide with Potassium Chloride

SQUIBB

"NATURETIN" & c̄ IS A SQUIBB TRADEMARK.

specific for tension headache...

FIORINAL®

relieves pain, muscle spasm, nervous tension

rapid action · non-narcotic · economical

"We have found caffeine, used in combination with acetylsalicylic acid, acetophenetidin, and isobutylallylbarbituric acid, [Fiorinal] to be one of the most effective medicaments for the symptomatic treatment of headache due to tension."

Friedman, A. P., and Merritt, H. H.: J.A.M.A. *163*:1111 (Mar. 30) 1957.

Available: Fiorinal Tablets and New Form — Fiorinal Capsules

Each contains: Sandoptal (Allylbarbituric Acid N.F. X) 50 mg. (3/4 gr.), caffeine 40 mg. (2/3 gr.), acetylsalicylic acid 200 mg. (3 gr.), acetophenetidin 130 mg. (2 gr.).

Dosage: 1 or 2 every four hours, according to need, up to 6 per day.

SANDOZ

benzthiazide

NaClex®

a new molecule with an unsurpassed faculty for salt excretion

A. H. Robins announces NaClex, a potent, oral, nonmercurial diuretic. NaClex is a new molecule, designated benzthiazide. Its unique chemical structure produces a "pronounced increase in diuretic potency"[1] over many older diuretics. NaClex also has antihypertensive properties, and it enhances the activity of other antihypertensive drugs.

in diuresis

salt removal is still the fundamental objective

As salt goes, so goes edema

A fundamental principle of diuresis is that "increased urine volume and loss of body weight are proportional to and the osmotic consequences of loss of ions."[2] New NaClex helps reduce edema through the application of this basic principle.

Apparently functioning in the proximal renal tubules, NaClex strictly limits the reabsorption of sodium and chloride ions. To maintain the essential, subtle balance between salt and water, the body's homeostatic mechanism reponds to this loss of ions by allowing an increased excretion of excessive extracellular water. Thus the NaClex-induced removal of salt leads directly to the reduction of edema.

How potent is benzthiazide?

Compared tablet for tablet with oral diuretics now available, NaClex is unsurpassed in potency. Milligram for milligram, it has achieved optimum diuresis in pharmacologic studies at 1/20 the dose required for chlorothiazide.

What are the major diuretic indications for NaClex?

NaClex produces diuresis, weight loss, and symptomatic improvement in edema associated with conditions such as congestive heart failure, cirrhosis of the liver, chronic renal diseases (including nephrosis), premenstrual tension, toxemia of pregnancy, and obesity. Edema of local origin and that caused by steroids may also benefit.

To what extent is NaClex useful in hypertension?

NaClex has definite antihypertensive properties, and may be used alone in mild hypertension. In severer cases it may be used with other antihypertensive drugs, potentiating them and permitting their use at lower dosage. In hypertension with associated water retention, NaClex is of twofold value. It may be prescribed for congestive heart failure as an ancillary measure to digitalis.

Is potassium excretion a problem with NaClex?

In short-term therapy, excessive potassium excretion is unlikely. In the effective dose range, potassium loss varies from 1/6 to 1/2 that of sodium. Naturally, the ratio of these ions depends on the rate at which excess sodium stores are depleted, and whether salt intake is restricted.

Can NaClex and mercurials be given concurrently?

Yes. When so employed, NaClex may increase the efficacy of mercurials. But NaClex alone is often effective enough to eliminate the need for parenteral mercurial administration. Also, NaClex may be effective in cases when mercurials are not.

Supply: Available in yellow, scored 50 mg. tablets.

References: 1. Ford, R. V., Cur. Therap. Res., 2:51, 1960. 2. Pitts, R. F., Am. J. Med., 24:745, 1958.

For complete dosage schedules, precautions, or other information about new NaClex, please consult basic literature, package insert, or your local Robins representative, or write to A. H. Robins Co., Inc., Richmond, Va.

A. H. ROBINS COMPANY, INC.
RICHMOND 20, VIRGINIA

PHARMACEUTICAL RESEARCH 1878

Use of pHisoHex for washing the skin augments any other therapy for acne — brings better results. Now, pHisoAc Cream, a new acne remedy for topical application, suppresses and masks lesions — dries, peels and degerms the skin. Together, pHisoHex and pHisoAc provide basic complementary topical therapy for acne.

pHisoHex, antibacterial detergent with 3 per cent hexachlorophene, removes soil and oil better than soap — provides **continuous** degerming action when used often. pHisoHex is nonalkaline, nonirritating and hypoallergenic.

When pHisoAc Cream is used with pHisoHex washings, it unplugs follicles, helps prevent development of comedones, pustules and scarring. New pHisoAc Cream is flesh-toned, not greasy. It contains colloidal sulfur 6 per cent, resorcinol 1.5 per cent, and hexachlorophene 0.3 per cent in a specially prepared base. pHisoAc is pleasant to use.

A new "self-help" booklet, **Teen-aged? Have acne? Feel lonely?,** gives important **psychologic first aid** for patients with acne and describes the proper use of pHisoHex and pHisoAc. Ask your Winthrop representative for copies.

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Dosage: 2 Tablets B.I.D. (A.M. & P.M.)

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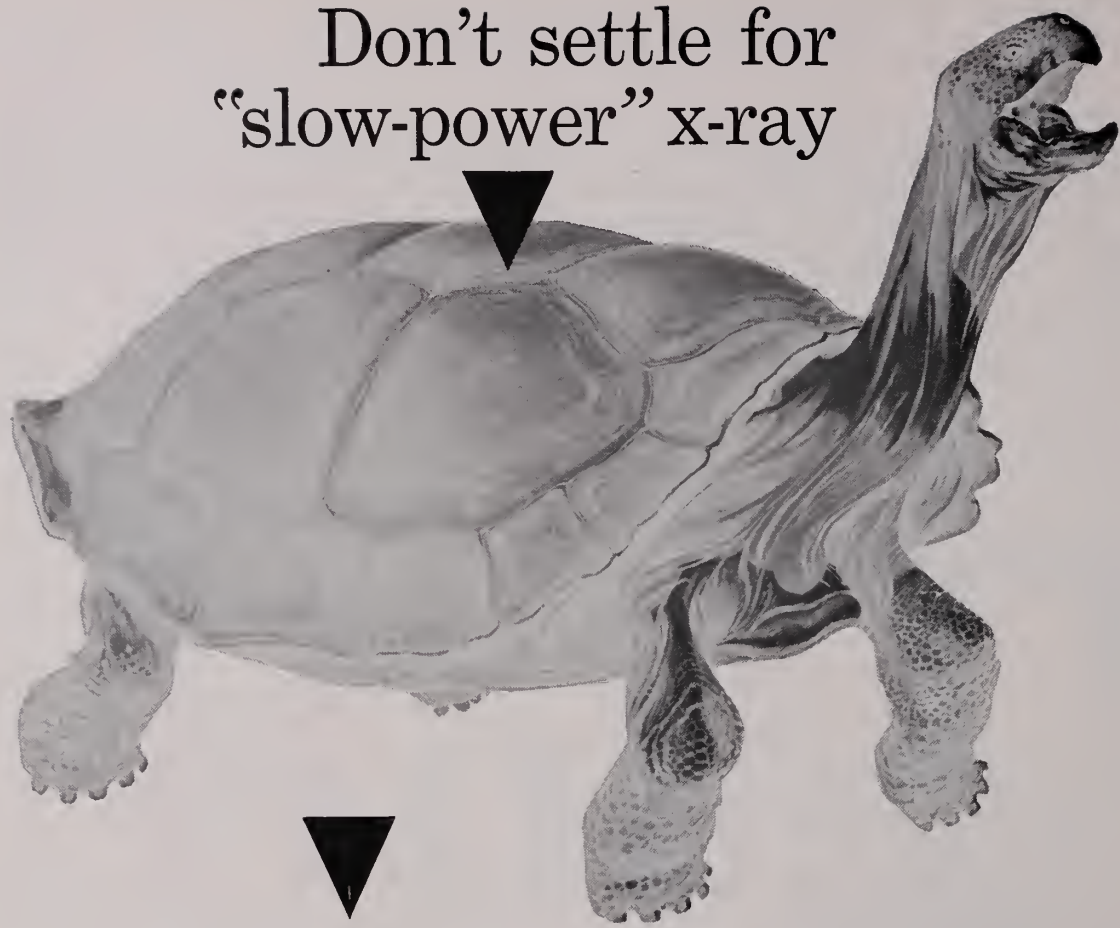

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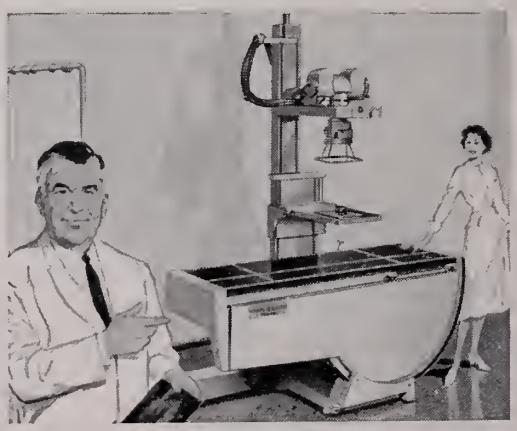

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1. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

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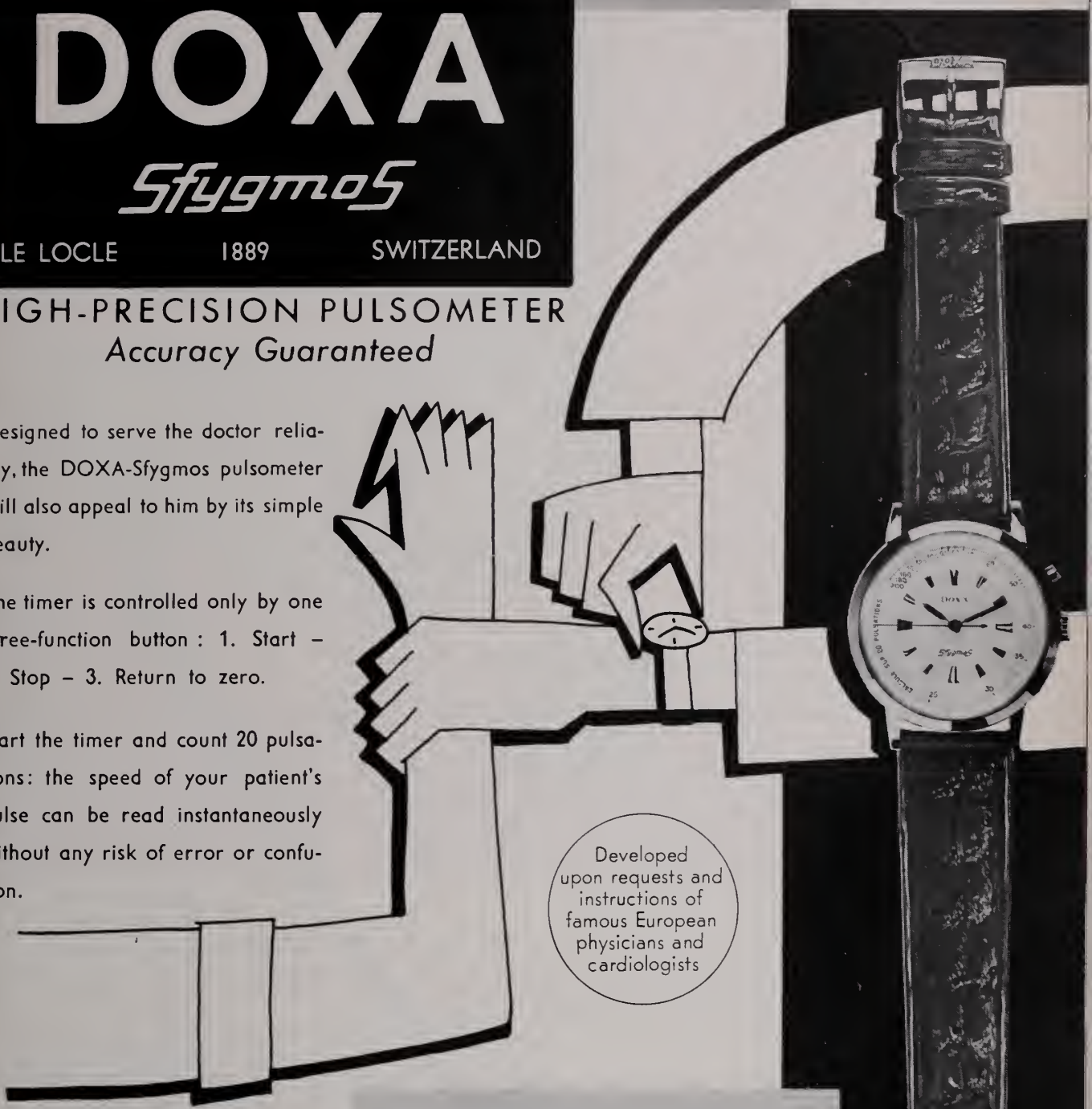

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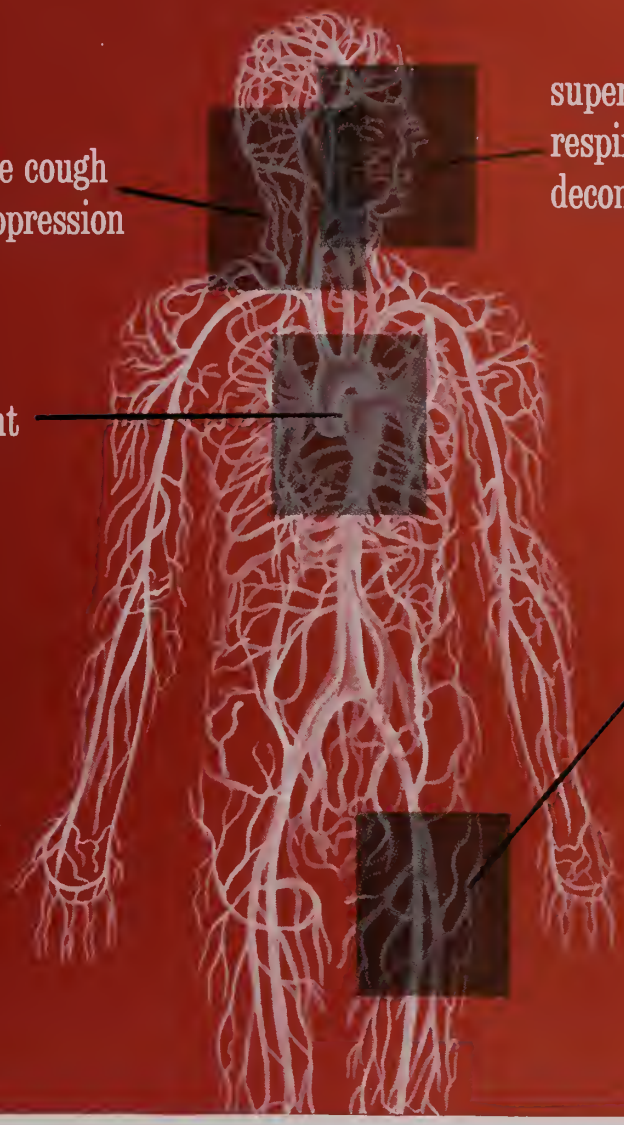

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1. Stephens, V. C., *et al.*: J. Am. Pharm. A. (Scient. Ed.), *48*:620, 1959.
2. Salitsky, S., *et al.*: Antibiotics Annual, p. 893, 1959-1960.
3. Reichelderfer, T. E., *et al.*: Antibiotics Annual, p. 899, 1959-1960.
4. Kuder, H. V.: Clin. Pharmacol. & Therap., in press.

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November, 1960
Vol. 87, No. 11
Whole No. 1302

Guest Editorial....

The Uses and Limitations of Electro-Encephalography (EEG)

ELECTRO-ENCEPHALOGRAPHY (EEG) has been much discussed in medical journals (also in lay journals!) in recent years, as all physicians know. It is believed by the writer, however, that, in certain instances (notably in post-traumatic intracranial cases) its value has been over emphasized recently in the study of clinical neurological and neurosurgical problems. It is an interesting and useful research tool in neurology clinics and it also has certain real value in localization of the essential cerebral lesion in epilepsy, but in resorting to it preponderantly in the diagnosis of brain tumor and subdural hematoma, for instance, and especially in the interpretation of its tracing and determination of therapy in *acute head injury cases* and *post concussion problems,* its usefulness is extremely questionable and, indeed, in the writer's opinion, it is sometimes distinctly misleading and untrustworthy.

In a recent discussion relating to the utilization of the EEG in acute head injury cases and its medico-legal implications at a meeting of the Philadelphia Neurological Society (March 5, 1959), the statement was made by Bernard J. Alpers[1] (Jefferson Medical College) that there was some question *as to whether there was a true correlation between the EEG findings and the clinical state of the patient with a head injury.* It appeared to Alpers that the *evidence does not warrant a direct correlation between the EEG tracing and the clinical condition of the patient.* It is common experience, he said, to find that the EEG may be "abnormal" and the clinical state entirely quiescent and the reverse may also be true. It was emphasized at the same meeting (by Matthew T. Moore) that it is well known that a patient can have brain damage of a diffuse and gross type and demonstrate (at the same time) a negative or normal EEG! Also, as high as 25 percent of patients with overt epilepsy may have negative EEG's. How then, inquired Moore, using the EEG as an index or guide, can one differentiate the damaged brain by this means alone? Charles Rupp stated that, in his extensive experience in dealing with acute head injury cases, almost invariably the EEG is reported as being within normal limits. These statements certainly cast considerable doubt on the *reliability,* the *accuracy* and *especially the necessity* for EEG tracings in the acute head injury patient.

The misguided zeal with which EEG's are urged in some hospitals today in acute head injury cases has also permeated the nursing staffs. In this regard, the writer was recently rather startled in a large general hospital as he was about to see, for the first time, an acute head injury case in consultation. He was met at the door of the patient's room by a staff nurse who inquired if he didn't think an EEG was urgently needed as the patient (who had had a simple concussion) had already been in the hospital for 48 hours and no such tracing had as yet been made! In the writer's opinion, no procedure at that time could possibly have been more bothersome, more unnecessary or more financially wasteful, so far as the patient's general welfare was concerned!

According to Paul Bucy,[2] of Chicago, one of the most critically minded and most widely experienced neurological surgeons active in the field today, it is apparent that,

although certain electro-encephalographic wave patterns are found most often in normal healthy people, while other patterns are seen most commonly with cerebral disease of various types, it is also true that five to ten percent of apparently normal healthy people have electro-encephalograms that are abnormal.

It is believed by us that in acute head injuries, when electro-encephalograms are made shortly after trauma, and an "abnormality" is found in the EEG tracing, it means very little, in all cases of this type, unless one would happen to have an electro-encephalogram of the individual *before the accident.*

The medico-legal implication of this fact is obvious, and also important. The reason for this is that birth (brain) trauma, meningitis and other early-in-life lesions, which the brain of a developing child may sustain, are capable of producing gross brain wave abnormalities years later and this may distort the EEG tracing and *its interpretation* in such individuals with recent head trauma.

Bucy emphasized, and we also have experienced this, that (particularly) adult patients may have major convulsions and show normal electro-encephalograms and still other individuals may have verified brain tumors or subdural hematomas, or subarachnoid hemorrhages, and also have normal electro-encephalograms! The EEG will not indicate the presence within the brain of a cystic cavity that is not under tension. The statement which has been made, that the EEG is the best available measurement of the physiological activity of the brain, is completely without foundation. In this same connection, it must be borne in mind that the electro-encephalogram is incapable of demonstrating the absence or destruction of brain tissue, such as occurs so often and typically in cerebral contusion and laceration in head trauma cases. The EEG cannot disclose the absence of a lobe of the brain that has been removed surgically. It cannot demonstrate the functional inactivity of a frontal lobe that has been largely separated from the rest of the brain by lobotomy. An area of brain rendered completely inactive by infarction gives no evidence of its presence in the EEG. In the acute stage, an area of infarction produced by cerebral embolism or thrombosis will so affect the neighboring brain as to give rise to a striking slow-wave focus in the EEG; but, with the passage of time, this slow-wave focus will disappear and the electro-encephalogram will again become normal.

So-called "normal" electro-encephalograms may be misleading in many other ways. They may be unrevealing in the presence of certain cerebral neoplasms, notably parasagittal meningiomas. Bucy quoted O'Leary as stating that infiltrative gliomas of the cerebral hemisphere are often difficult, if not impossible, to recognize and localize with the electro-encephalogram. A "normal" electro-encephalogram is obtained in some 10 to 20 percent of all cases of epilepsy and in approximately one-third of all adult epileptics. The writer recalls a statement of our late chief, Dr. C. C. Coleman, who reported that the EEG tracing, on a patient whom he had personally observed to have a generalized grand mal seizure severe enough to shake the bed, was reported as being entirely normal!

Relatively few clinicians rely upon their own interpretation of the EEG tracings obtained from their patients. The study and interpretation of the EEG's are commonly delegated to a specialist in that field. The question has arisen as to how closely several experienced electro-encephalographers agree with each other with respect to the same tracing. Bucy, personally, has had the experience with a single patient in which four EEG's were made in three different laboratories. *Each tracing was interpreted differently!* One was said to indicate a lesion in one frontal lobe, one a lesion in the opposite temporal lobe, one was said to show a generalized dysrhythmia and one was said to be normal. In that particular case, it should be added that repeated neurological examinations disclosed no evidence of any neurological disease and the history was not suggestive of any greater disturbance than a man seeking compensation for a trivial

injury. This experience could certainly be duplicated by many neurosurgeons throughout the country, including our own clinic. It is therefore obvious that the interpretation of the electro-encephalogram is by no means easy or simple and that there is wide disagreement as to the significance of the same tracing when it is interpreted by several experienced electro-encephalographers.

The EEG does have a typical wave pattern in association with petit-mal epileptic seizures and with psychomotor or temporal lobe epilepsy. Independently, however, the electro-encephalogram *is often not a trustworthy diagnostic instrument.* No one, by this means alone, can invariably or even often make a satisfactory diagnosis of epilepsy, brain tumor or a traumatic lesion of the brain.

Far more serious than the limitations of the method is the misapplication of electro-encephalography for purposes for which it should never be used. It is obvious that electro-encephalography is but another laboratory procedure with considerable limitations. It is a highly specialized examination of a patient for a very short period of time—commonly not more than an hour. It can never be a complete examination in itself. It can never take the place of a careful history, a complete neurological and general physical examination, and an evaluation of all of the evidence available including roentgenograms, examinations of the blood and spinal fluid, if indicated, and other special tests. It is but a small part, therefore, of the entire examination of the patient. To diagnose, or worse, to prescribe for the patient on the basis of the EEG alone, *or to testify in court regarding a question of injury to the brain largely on the basis of the EEG,* with little regard being paid to the neurological examination or status of the patient, or the significant points in the history of the trauma, is entirely inexcusable and unjustified in the writer's opinion.

The EEG is, however, occasionally of interest, and even a real help in some puzzling clinical cases, particularly in those not related to trauma. In certain neurological problems, of course, clinical (cerebral) localization is on occasion quite difficult and the EEG may afford a valuable lead as to localization in the individual case. However, in no instance in the writer's knowledge would craniotomy, in our clinic, ever be carried out for a suspected surgically important mass lesion of the brain on EEG evidence alone, but such data or clinical impressions must always be corroborated by an air injection, or an arteriogram, or both of these latter two procedures, before major operation is to be seriously considered. This is the present state of our thought, knowledge and belief, especially among neurosurgeons, regarding the usefulness of electro-encephalography in clinical neurosurgical practice today.

The above remarks are not to be interpreted as meaning that electro-encephalography does not have a proper place in neurology and in medicine. It is, however, not a substitute for any other form of examination. It should not be misapplied or misused. It is of little value in psychiatry or with functional disorders, except in differential diagnosis. It will not help in the recognition of a "functional" psychosis, mental retardation, psychoneurosis or migraine, but it may be of great assistance in identifying some of the brain tumors, encephalitic processes and subdural hematomas that masquerade as functional disease, *especially when the EEG tracing is interpreted by an electro-encephalographer of great experience and reliability.*

As Bucy so aptly stated, we have not yet achieved "push button" medicine and the electro-encephalogram is not the neurologist's "diagnostic machine".

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Medicine at the Crossroads

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Medicine has many pressing problems but first of all we should begin solving them by cleaning our own house. Our ideas and policies must become more liberal and more flexible if we are to give better medical care to more people at a price they can pay. In so doing, we will help build a better America and in the process become a better and more respected profession.

THIS HAS BEEN A BUSY but interesting and rewarding year. To have served as your president is an honor I deeply appreciate. In the knowledge that few are so honored, I shall hold dear my experience of the past year. While I have tried to justify the confidence you so graciously placed in me, I am the first to admit that all my dreams and ambitions have not been realized. Despite this, I believe we have had a reasonably fruitful year but the credit for the job done must be given to the many people whose hard work and cooperation are a tradition in this Society. Outstanding among them are your headquarters staff, Mr. Howard, Miss Watkins, Mr. Smith and Mrs. Spring, the members of your Council, your committee chairmen and committee members, the members of the Committee on General Arrangements, who arranged this wonderful meeting, our Woman's Auxiliary and last but not least the many members of the Society whose advice and suggestions have been invaluable. They have made my job a relatively easy one, and I want to publicly thank each of them. I am also grateful to that magnificent machine called the airplane which made it possible for me to perform my duties with little waste of time and absence from home, thereby permitting me to stay in the relatively good graces of my family and partners.

Never before have our nation and our profession been confronted with so many serious problems. They are perils born in the warped minds of revolutionists and in the mushroom clouds over Nagasaki and Hiroshima in 1945. I feel inadequate to attempt even a discussion, much less suggest a solution, for any of them, but we cannot, and we would not if we could, refuse to accept our share of the many responsibilities thrust upon us by these social, economic and political upheavals brought on in the aftermath of World War II.

Please bear with me while I attempt to discuss a few of medicine's more pressing problems: namely, the elimination from our profession of the undesirable and incompetent, our public relations, which in some areas are in need of repair, voluntary health insurance programs, better care for the aged and the indigent, and finally and most important, a realistic attitude toward third party medicine and free choice of physician. Do not construe these remarks as an indictment of the medical profession. Instead they are a plea that we recognize the phenomenal social and economic changes which have taken place during the past decade over which we have no control and that we find our place and adjust ourselves to the pattern of these times. Lack of vision and leadership in times like these mean our engulfment in a swirling storm from which rescue can be effected only by government at the price of freedom, and this is too high a price to pay for lethargy and complacency. We should start by cleaning our own house.

Most of the accusations hurled at us are born of ignorance or are deliberate distortions of the truth but we cannot deny that some are factual. Admitting this, we should employ every reasonable means to eradicate from our profession its undesirable traits. Failure to do so invites continued criticism and federal control of medicine.

For too long we have permitted a very small minority of unethical, incompetent, and even ruthless individuals to take refuge in our medical organizations. Their misdeeds gain notoriety and reflect discredit upon the entire profession. Our medical societies must assume the initiative in ferreting out

Presidential Address delivered before the annual meeting of The Medical Society of Virginia at Virginia Beach on October 10, 1960.

such individuals for probation or even expulsion where such drastic action is proved justified. The machinery necessary for such action is already available in our societies. We merely need the courage to put it into operation.

We must devise a positive and aggressive defense against malicious attacks by certain left wing elements in the press, education and labor, who impugn our motives and defame our character. To do nothing is interpreted by these critics as an admission of guilt.

We have heard so much about public relations that to mention them again invites boredom. None the less, good public relations are essential to the art of the practice of medicine and have been sadly neglected. Our national and state medical associations have bombarded us with letters, pamphlets and stickers, most of which are promptly discarded without reading. The approach to the subject has been illogical from the beginning. We forget that the public is not only cool but even resentful toward most of our propaganda. What little confidence we may instill in a few is promptly destroyed by scurrilous articles read in the press and magazines by millions. The individual physician is the cornerstone on which to build a respected profession. Public relations are the good manners of any business and cannot be legislated from above. They must be either an inherited trait or taught from infancy. This is one important part of our training completely ignored by most medical schools.

We are accused by some of being smug, clanish, unapproachable and even indifferent to the medical needs of our indigent citizens. We have unconsciously erected about ourselves a professional and social barrier through which little knowledge of our aims, ideals, activities and humanitarian instincts can disseminate. We are too busy, and in most instances with the highest motives, to enter into the civic, social and philanthropic activities of our community. This inherent characteristic of the practice of medicine deprives us to a large degree of that intimate association with other businesses and professions so necessary for a sympathetic understanding of our motives. No profession is viewed with more curiosity and ignorance and not until curiosity is satisfied and ignorance banished will we be able to regain the respect and admiration we enjoyed a generation ago. Those were the days when the general practitioner was his own public relations manager. Specialization and the stern realities of our present mode of living have made the return of such an era impossible and perhaps undesirable. However, we can and must find a way out of the precarious position which we now occupy. The American Medical Association, despite the many criticisms leveled at it, is our great bulwark against the perils besetting our profession and as such deserves our loyal support. Only through organized action can we hope to remain independent. If you are not already a member, please become one. The AMA needs all of us.

Successful public relations must begin with the medical student. The wards and clinics of our medical schools, where patients are treated in assembly line fashion, tend to destroy the proper concept of human relations which may have been taught by wise parents. The student is educated in the very atmosphere of socialism which he is asked later to reject. Many find the abrupt transition from a relatively sheltered, though poorly paid, existence to private practice too great to accomplish quickly and gracefully. To eliminate this severe handicap every medical school should include in its curriculum a compulsory course in public relations designed to impress on the student his responsibilities, not only to his patients but to his community and fellow physicians. Such training would produce more civic leaders from our profession while creating within it a more congenial and sympathetic attitude toward our national and community problems.

Some, but fortunately a minority of physicians, enter private practice zealous of income rather than service to humanity. In an effort to attain their goal they frequently charge large fees without regard to their patients' ability to pay. When confronted with this situation they are either reluctant or refuse altogether to arbitrate. Some of us inadvertently, but seldom maliciously, make remarks casting doubt on the competence or even integrity of our fellow physicians. Such inadvertence creates suspicion and produces fertile soil for malpractice suits. In these respects we are our worst enemy. A course of indoctrination in proper human relations included in the curriculum of every medical school would eliminate many of these defects. These statements are not intended to reflect discredit on our medical schools and are not to be interpreted as such. They are made as constructive suggestions.

For a hundred years tradition has prohibited us from engaging actively in politics and civic affairs. Now we live in an era which demands that we assume our just proportion of national, state and local responsibilities. If we are to retain our place of honor and responsibility in our community we must give willingly and generously both of our time and money

to support its needs. Failure to do so provokes criticism from the press, radio and public. Just why we should be singled out as a group for such criticism is not clear unless it is because we can never escape the public eye.

Our relations with the press, though improving, are still in need of repair. Through our refusal to give information, admit them to our meetings and make public appearances through news media we have unwittingly contributed to these poor relations. They need and want our cooperation to assure more accurate and friendly reporting of events affecting us. These problems can be solved by the public relations committee of our various societies and the adoption of such programs in many areas has received the enthusiastic and friendly approval of the press and public.

Voluntary health insurance has been hailed by the American Medical Association and almost every other medical organization as the answer to socialized medicine. No one will deny that it is the democratic approach to the high cost of medical care and that a better substitute has not been found, but it does not and will never provide for the improvident and the indigent. We must devise some practical way of caring for these two groups.

The passage of the Mills Bill with the Kerr Amendment in the last session of Congress was a significant victory for free enterprise, and medicine in particular. This bill will permit the allocation of federal funds to state and local governments on a matching basis to be administered locally. The determination of need will also be made locally and financial assistance limited to the indigent and near needy rather than all those on social security regardless of need. We have won a great battle but not the war. Unless we as doctors and citizens in our own communities work for its success, it will fail. At present funds in many localities are insufficient for such a matching program and can be obtained only by raising taxes, which is always unpopular. Through work, cooperation and education with various civic and governing bodies we can and must assure that adequate funds are made available. Failure of this program will be cited by socialist planners as proof that health problems can be solved only by the Federal Government. Under such adverse conditions we will almost certainly lose our next battle and probably the war. Don't let it happen.

The success or failure of voluntary health insurance programs depends on the judicious use of such programs by us. In some instances widespread abuse of these programs by both patients and doctors has resulted either in near bankruptcy or in an increase in premiums to such an extent that the cost is prohibitive to those for whom such insurance was primarily designed. There is overwhelming evidence that unless hospital admissions are limited to those needing such care, and unless the medical profession establishes effective controls of other wastes and abuses, the cost of premiums will increase to the point that the public will refuse the voluntary way and demand federal control of medicine. The success or failure of voluntary health insurance programs is ours to determine and if we fail socialized medicine is our only alternative. We must do our part now.

Please tolerate and forgive me while I express this very strong personal conviction:

All freedom-loving people, and especially those of us in or allied with the medical profession, have a tremendous stake in November's election. This election will determine whether the floodgates of socialism will be opened wide or whether they will remain closed for a few more years. If elected, the supporters of Forand type of politically controlled medicine and other socialistic schemes will almost certainly enact legislation which will guarantee within a few years the complete socialization, not only of our profession, but many other segments of our economy as well. I plead with you not to let it happen. If properly exercised I am sure we have enough political influence to prevent such a catastrophe.

As a step in the practical solution of our aged problem, we must revise our present retirement policies. Such revision will be vigorously opposed by organized labor who wants our older citizens eliminated from the labor market, but despite their opposition I am sure that commonsense and fiscal sanity will prevail.

It is important to remember that in 1900 there were only three million people sixty-five years of age or older living in this country. By contrast in 1956 there were fourteen million five hundred thousand people in this same group. By the year 1965 it is predicted there will be twenty-five million. If present retirement policies continue, the impact of this huge, non-productive group on our general economy within a few years will be disastrous. The average age of retirement for what has been considered good and sufficient reason has been set at sixty-five for labor, industry and educational institutions. But if one looks around he will find many individuals this age who are perfectly capable mentally and phys-

ically of making an important contribution to whatever position they hold at this time of life. To cope with this problem there must be a realization that retirement age must be physiologic rather than chronologic. It should be possible to use these individuals in a consultative capacity, letting the young still achieve the top jobs. To accomplish this will necessitate broad education of the public and others concerned with the complexities of this problem. Unless this is done one can foresee the serious consequences which will result when the young will have to carry what will obviously become an intolerable tax burden. Recent surveys have conclusively shown that most of these people want to work and only one in twenty-five indicated a wish to retire. Government grants for the purpose of supporting this group cannot go on increasing to astronomical levels.

The rising cost of supporting the aged in retirement, the recognized value of the older worker from the standpoint of efficiency, his lack of absenteeism, his loyalty and the recognized wastefulness occurring when human resources are squandered at the age of sixty-five are compelling reasons why our compulsory retirement policies must be revised. It is the responsibility of the community and industry alike to provide work for those who are willing and able to work. Likewise it is the responsibility of the aging worker to realize that he has been and will continue to be a member of a society that wants and needs what he has learned through his years of efforts.

We must acknowledge the fact that reaching the age of sixty-five does not automatically make an individual either a dependent or a problem and our older citizens must remain independent and active and an integral part of normal community life as long as possible. People who are in good health and who are fully able to manage their own lives with complete independence should do so whether or not they happen to pass the age of fifty, sixty, seventy or seventy-five years.

No one seriously questions the need or the justification for supporting through voluntary philanthropy and/or taxes special facilities for the care of those people who are unable to care for themselves. There is, however, good reason to question critically whether the self-supporting people in the community should be expected to contribute to the support of special housing or other care for people young or old whose care can be provided either by themselves or their families. Despite the enormous proportions of this problem I am confident that with all of us working together it can be solved on a community basis much more satisfactorily and economically than can be done by the Federal Government. We can and will voluntarily provide for our sick and needy and the medical profession in cooperation with labor and industry should furnish the leadership necessary for reorientation of our thinking with regard to a compulsory retirement age and a more benevolent attitude toward the value of our senior citizen to his community.

Our concepts of free choice of physician and third party medicine have undergone drastic changes since the end of World War II. No one is a greater exponent of free enterprise than I, and free choice of physician is certainly an integral part of it, but we must not forget that phenomenal changes in the social and economic structure of the practice of medicine have taken place during the past decade and the end of these is nowhere in sight. We must be flexible enough to adjust to these changing patterns. If we are to salvage even a vestige of freedom in our profession we must assume the huge responsibilities of leadership which are rightly ours rather than stick our head in the sand and refuse to recognize the inevitable. Dr. Elmer Hess, past president of the American Medical Association, has ably defined the free choice of physician and I quote:

> "Let us not make any mistake about this proposition of free choice. Let's define it in the only way it can be defined. He who pays the bills may choose whomsoever he desires for his medical advisor but he who asks someone else to pay his bills is obliged to accept the choice of the giver of the gift. There can be no other definition of the expression of free choice."

Fringe benefits providing health insurance are widely accepted by business and industry and are almost universally demanded by unions. To deny their existence or refuse to accept and cooperate with them hastens the demise of the little freedom we now enjoy. The sane and sensible approach to such reality is for the medical profession to work out some method of cooperation with organized labor rather than be forced to knuckle under by both government and labor as in Great Britain. If medicine is intransigent, if it fights labor, it will drive the workers to seek government medicine under a federal policing system. One thing is obvious, organized labor is going to organize medical services with or without the cooperation of organized medicine. Labor will find enough physicians to go along with experiments in group practice. Indeed, many physicians have

organized private clinics having no relation to labor groups but are ready to cooperate with them.

Labor wants high quality medical care for themselves and families at a time and in a place where it is needed. They are willing to pay. They want reasonable freedom of choice but wish to be protected from poorly trained physicians, from quacks and from nonaccredited hospitals. Such requests do not seem unreasonable. Perhaps they want too great a say about organization but with proper top level leadership and cooperation from the medical profession I feel sure that their present demands would be greatly modified. It is late, but I do not believe too late, for us to seize the initiative in the establishment and control of high quality, third party medicine. If men of good will in labor circles and in the medical profession will get together around the table to solve these problems which affect not only labor and medicine but the community as a whole, I believe we can devise a system of medical care so superior to a politically controlled one that the threat of socialized medicine will fade into thin air.

Dr. Vincent Askey, President of the American Medical Association, said at Miami Beach last June, and I quote:

> "I urge every state and county medical society to review once again the recommendations of the Commission on Medical Care Plans. I urge that they be implemented now with all possible speed and vigor. Any third party which is trying to do a medically sound job in the field of health care should be numbered among our friends and allies."

The way ahead is fraught with complexities. Change is inevitable and with a labor force of over sixty million and a medical profession of two-hundred thousand, it should be obvious to us what will happen in the event of a head-on conflict.

Because of the ever-widening scope of third party medicine, I strongly recommend that our Society give serious consideration to making a Relative Value Study with the hope of developing a satisfactory Relative Value Scale. Such a scale, if established, would greatly simplify negotiations with third parties regarding fees.

In conclusion I must acknowledge that a discussion of these subjects, especially third party medicine, was undertaken reluctantly, conscious of the fact that vigorous expression of ones personal convictions entails the risk of causing offense. Such was not intended and if I have abused your sensitivity I humbly apologize. I will further admit that some of the ideas proposed in this talk are not my personal preference. Instead they are an acknowledgment of the existence of radical social and economic forces over which we have no control and that they are affecting vast changes in our society. Admitting this, I sincerely believe we cannot retain our status quo but that our ideas and policies, if we are to give better medical care to more people at a price they can pay, must become more liberal and more flexible. That in the final analysis is the goal toward which we have been striving for generations. We can have no nobler aspirations. In so doing we will help build a better America and in the process become a better and more respected profession. To quote Mr. Chester Lauck of the famous Lum and Abner team:

> "There are two things with which we need to be concerned. We need roots to hold us firm and we need sky to hold us up, and in between a living process. Because, out of our beliefs we perform deeds, out of our deeds we form habits, from our habits grow our character, and on our character we build our destination."

While appraising this perilous world in which we live, someone else has eloquently said, "When little men begin to cast long shadows the sun is setting on civilization."

Finally, I cannot close without paying tribute to my wife for her patience, tolerance, and understanding and to my hard-working secretary for her loyalty, and keen interest in your Society. They have made a pleasant experience out of a job which under some circumstances could have been a burden.

Thank you again for the trust you have so generously placed in me and for your friendship which I value so highly and will always cherish.

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Infection and the Allergic Child

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Infection becomes more of a problem in children when there is an allergic disease. Not only the child and the infecting organism, but the allergic disease also must be considered in managing these cases.

THE DIAGNOSIS and management of infection in allergic persons is an ever present problem. The relationship between infectious agent, the child, and the allergic disease from which he suffers can be likened to that of seed, fertile soil and growing conditions. While the end result is primarily the product of these three major components, it is also affected by any other factors which directly or indirectly alter these three variables. To avoid becoming hopelessly confused by this kaleidoscopic situation, we can consider representative examples of each component in turn: first, the infection, second, host factors, and lastly, the allergic condition.

The bacterial infections most important for our problem are those due to hemolytic staphylococci, beta hemolytic streptococci, and less often, to gram negative organisms and tubercle bacilli. The two major groups of viruses of interest in allergy are those causing respiratory disease, and those responsible for certain of the childhood contagious diseases and vaccinia. The fungus infection with which we are mainly concerned is monilia, as a skin, respiratory and gastrointestinal tract pathogen. The present discussion will not include other pathogenic skin fungi, nor fungi as aero-allergens, nor intestinal parasites, although these, too, are special problems of interests in allergy.

The need for specific bacteriologic diagnosis is increasing as more organisms become drug resistant, and more patients develop drug intolerance. Ideally the identification of the precise sort of infection is made by appropriate laboratory tests, and specific treatment is then started. In actuality, this often is impossible. However, some of the important infections can be excluded or suspected by simple tests even with limited laboratory facilities. A tuberculin can and should be done periodically on all children. Monilia is easily recognized on direct smears from the mouth and skin when stained with methylene blue. It grows rapidly at room temperature on prepared Pagano-Levin media which is easy to inoculate. Also, a new rapid method for identification by incubation in human serum has recently been described.[1] Depending on local conditions, bacteriologic cultures may be more difficult to obtain for some physicians than for others. There is a growing tendency to utilize hospital and diagnostic laboratories, health department facilities, and do-it-yourself types of simple inexpensive office incubators and prepared media for accurate bacteriology of children's infections. Identification of viruses is not so easily within the reach of everyone. The special laboratory techniques, the length of time required for growth, the complexity of the serologic tests in most cases relegate the virus to the virologist. At present, clinicians must rely on the clinical symptoms and signs, characteristic changes in the blood picture, and the negative evidence, of no demonstrable bacterial infection, to assume the presence of a viral disease.

How common are these various infections in allergic children? Among our patients from infancy to 14 years, we have found five percent with positive tuberculins, and between one and two percent with clinical tuberculosis. Monilial infections appear to be increasing in frequency both as an aftermath of antibiotic treatment, and as a complication in eczema. We can recover monilia in cultures from about one in every thirty allergic children, and we find positive skin tests to monilia in nearly one-quarter of the eczemas we now see. In addition, eczematized "monil-id" is becoming increasingly common among the patients we have seen in recent years.

The frequency with which we find pathogenic coagulase positive staphylococci in routine nose and throat cultures can be illustrated by the results of

From the Department of Pediatrics, Duke University Medical Center, Durham, N. C. Presented before the Annual Spring Clinic, Norfolk, Virginia, March 12, 1960.

a two-month survey from September to November 1959. During this period, in the throat cultures taken on just over 200 allergic patients seen in our clinic, we found 50 children with coagulase positive staphylococci. The laboratory of the North Carolina Board of Health carried out phage typing on these, and found 24 which were of specific phage type. From 16 individuals hemolytic staph aureus types 80-81, 42B, 47C, 44A, and 52 were recovered, all considered to be potentially drug resistant. A review of the nose and throat cultures which were done in the winter and spring of 1958 on 60 allergic children, and in the fall of 1957 on 118 allergic children, showed that one-third and one-quarter, respectively, contained hemolytic staphylococci. At that time, coagulase tests and phage typing were not done routinely so the percent for these characteristics cannot be further compared. This merely reinforces the clinical impression that the hemolytic staphylococcus is frequently present in allergic persons.

Beta hemolytic streptococcus is less regularly present, but seems to appear in waves among our patient material. There will be periods of several weeks when many of the cultures will be positive, interspersed with fairly long periods when hemolytic streptococci are only infrequently encountered in children who are actually ill.

One of the most impressive findings, in studying allergic children who have a bacterial infection, or a history of repeated infections, is the high rate of family infection. Among the 50 children with coagulase positive staphylococci, 10 families had one or more members with a phage typeable coagulase positive staphylococcus, five of which fell into the broad 80/81 group. Repeatedly we find the entire family colonized by the same organism.

One of these families consisted of a physician; his wife, 5 months pregnant; and three daughters, age 6, 4, and 2 years. The 4 year old daughter was the first member seen, after she had had 150 boils in a three-month period. Because they were confined to her buttocks and thighs her physician suspected a skin allergy. While studies were being carried out on this child, 80/81 type staphylococci were recovered from her boils, her nose and throat, and from the father, even though he saw the family infrequently as he was employed in another city. The same organism was cultured from the patient's high chair, toilet seat, diaper pail, the kitchen sink, and the floors. Two weeks after the patient was first seen, her mother's face was accidentally spattered with purulent material while she was dressing one of the child's boils. The mother promptly developed a serious cellulitis of the eyelid and cheek. Two weeks later, with mother recovered and with the patient seemingly free of infection, the 6 year old sister was accidentally scratched on the thigh by our patient. This child in turn, immediately developed a massive cellulitis of the thigh. Following this, the 2 year old developed a purulent conjunctivitis and a few small furuncles. All of these infections were due to 80/81 type hemolytic staphylococcus aureus. A succession of antibiotics and local treatment to skin and nasal passages was used on each member of the family. Measures to disinfect the house were carried out.

Serum electrophoresis showed that the 4 and 6 year olds had low normal gamma globulin levels. They have received gamma globulin at 3 week intervals. In addition our patient, the 4 year old, and her mother were given staphylococcus toxoid and autogenous staphylococcus vaccine. Their symptoms cleared in two months, at which time they moved to another town to rejoin the father. A short lapse in vaccine and toxoid was followed by a few furuncles in our patient. Shortly thereafter, the father in turn developed a series of boils which finally necessitated his hospitalization. Meanwhile an infant son was born, who now is 6 months old, and who so far has had no staphylococcal infections. It seems possible that the vaccine and toxoid which the mother received during the last trimester of pregnancy may have conferred some passive immunity on the baby.

Other examples of family infection are a lad who had allergic rhinitis and a long history of recurring fevers, and vague abdominal and joint pain, without evidence of carditis. The patient, his mother, two brothers and the maid all had beta hemolytic streptococci in throat cultures. In another child with allergic rhinitis and recurring sinusitis, from whom beta hemolytic streptococci were cultured, the source of exposure was finally found in a cousin and schoolmate, after 11 persons were cultured. When these persons were treated the patient remained well.

The families whose infections are shown in Tables 1, 2, and 3, illustrate the chronicity, the effect on allergic reactions in the patient, the necessity for considering every possible contact, and the desirability for simultaneous treatment of all affected persons.

Turning now to the viral infections which cause respiratory disease, we find at once that we lack much information on the frequency with which any one type is encountered in every day practice. During the past three years, we have followed a small

group of allergic children to whom adenovirus vaccine strains 1 through 5, and 7 were given. There were 118 children from whom pretreatment serum was obtained for neutralizing antibody titre. We found detectable antibody levels in one half of the children to type 2, and to the other strains in from

Recurring Infection in Boy With Eczema—Asthma (D.W.)

Age	Admission Hospital	Diagnosis	Culture	Remarks
10 mo.-2 yr.....	14	Eczema, Asthma, Pyoderma, Pharyngitis	B-Strep H.S.A.+	Steroid-Cushinoid F.M.S.*, B-Strep. Rx
2-3 yrs.....	4	Same	B-Strep H.S.A.+	F. boils, F.M.S., B-Strep. Rx G. G.† low, Rx F. & S., T. & A.‡; S. away
3-4 yrs.....		Well	Neg.	Nursing Home 5 mos.
		Impetigo	B-Strep	Parents visit. F boils.
			H.S.A.+ Monilia	Patient returned home G. G. low. Rx.
4-5 yrs.....	1 1	Pneumonia Tonsillitis, Eczema Pyarthrosis, Osteomyelitis	B-Strep H.S.A.+	Parents URI. Sister, pneumonia Allergy improved (2 mos.)
5-6 yrs.....	1	Pyarthrosis, Osteomyelitis		Orthopedic Hospital
Total.....	21	Hospital Admissions in 5 Years		

Table 1. Summary of infections in boy with chronic eczema and his family contacts. H.S.A.+, = hemolytic staphylococcus aureus coagulase positive.

*F.M.S. = Father, Mother, and Sister.
†G.G. = Gamma Globulin.
‡T. & A. = Tonsil and adenoidectomy.

Recurring Infection in Boy With Asthma—Allergic Rhinitis (G.Y.)

Age	Hospital Admissions	Diagnosis	Date	Culture	Remarks
0-1 yr...		Colds, Herpangina			Generally well
1-2 yrs..		Tonsillitis*	June July		New maid
2-3 yrs..	1	Bronchitis, Asthma	Nov. Dec.		Maid pneumonia
	1	Bronchitis, Asthma* Tonsillitis	Feb. Mar. June	B-Strep	Maid's child burned, infected F.M.S.* Maid and family, B-Strep throat B-Strep burned child; Rx
3-.....	1	Bronchitis, Asthma	Nov.	H.S.A.†	G.G. normal
	1	Same	Nov.	B-Strep	Maid's child B-Strep
	1	Same	Dec.		
	1	Diagnostic studies	Jan.	S.A.‡	M.F., B-Strep; M.S.A.; No symptoms; G.G.¶ low.
Total. *URI average once	6	Hospital Admissions per month.			

Table 2. Recurring infections in boy with Asthma-Allergic Rhinitis.

*F.M.S. = Father, Mother, Sister.
†H.S.A. = Hemolytic Staphylococcus aureus, coagulase positive.
‡S.A. = Staphylococcus aureus.
¶G.G. = Gamma Globulin.

12 to 35 percent of the group. Very few of the children had no titre (less than 1:8) to any strain. The presence of neutralizing antibody titre means previous contact with the virus and indicates a high rate of infection. The general pattern of their titres is shown in Table 4. From this group, 71 who were treated, had a two-weeks post-treatment specimen tested. The number who showed a significant rise of 4-fold in the post-treatment titre are shown in Table 5. These increased titres were not entirely consistent, and were most often seen in the 6-12 year olds to types 3, 4, and 7. It was interesting to note that pretreatment titres to strains 4 and 7, the types ordinarily seen in military personnel, were encountered fairly often in our patients. Many of these children were from families of servicemen, or from areas close to military installations. In several of the children with high titres against type 3, the pharyngeal-conjunctival virus, there was a history of such antecedent infection. It was our impression that the number of "colds" was reduced in many of the treated children in comparison to their own previous rate of infection, and that comparison of the treated and untreated group showed fewer colds in those who were treated. There were 96 children who received the vaccine, including both those with and without a pretreatment serum antibody sample. Of these 96 children there were an average of 4.3 "colds"

Infection in Infant Boy With Low G. G.,† and Two Sisters (M. Family)

Age	Admission Hospital	Diagnosis	Culture	G.G.		Sister A. 3 Yrs.	Sister B. 21 Mos.
				Patient	Sisters	URI's @ 2 yrs.	
0-1 mo...	N.B.	Impetigo Diarrhoea	"Staph"				
	(B) Sister					Bronchitis	Staph pneumonia Thoracotomy
1 mo.....	3 children	Bronchiolitis	E. Coli	0.1mg%	Normal	(E. coli) cough, allergic rhinitis	H.S.A.+* cough, allergic rhinitis
8 mos....		Boils Diaper rash	H.S.A.+	0.2gm%		Chr. T. and A.	Chr. T. and A. H.S.A.+
11 mos....		Well, Egg Sensitive		1.0gm%		Well	Well

Table 3. Family infections in baby boy with physiological low gamma globulin† and his two sisters.

*H.S.A.+ Hemolytic staphylococcus aureus, coagulase positive.

71 Treated Patients With A. V. Neutralizing Antibody
Percent Pre and Post Treatment

Patients No. and Age	Type I %	Type II %	Type III %	Type IV %	Type V %	Type VII %
Total Rx (71)	* 47 † 6	66 18	46 34	35 35	32 11	14 35
3-5 yrs. (15)	26 0	53 6	60 20	20 33	6 13	0 40
6-11 yrs. (43)	51 7	72 21	46 35	51 33	44 9	18 35
12-15 yrs. (13)	61 8	61 23	30 46	0 46	23 15	15 30

*Percent pre treatment neutralizing antibody >1:8.
†Percent 4-fold increase 2 weeks later.

Table 4. Allergic children treated with adenovirus vaccine divided into percent with neutralizing antibodies to strains 1-5 and 7 of adenovirus vaccine, before treatment, and with a 4-fold rise after treatment.

in the six months pretreatment and 1.5 colds per child in the six months after treatment. In twenty-two untreated allergic children, the ratio of colds was 3.5:2.3 during the period of time covered by the study.

During the second year of the study, due to limited supply of vaccine, only 30 children were given booster injections of the vaccine. If the interval between injections was longer than four months they tended to have "colds". With injections at four month intervals, these children maintained an average of 1-1.5 colds per six months per child. This group is too small to use for any generalization. It also consisted of children whose parents believed the vaccine was helpful and requested it a second year. No vaccine was given to these children the third year, and none have had less than two "colds" during this winter season.

Since we have digressed to treatment, we must stress that adenovirus vaccine is not yet the answer to preventing all "colds", and is only one more means of perhaps helping in a limited number of respiratory virus infections. It hardly is indicated for "colds" in the average non-allergic child. In the allergic child who has many respiratory infections which appear to be viral in nature and to trigger allergy, the situation is different, and any added protection is valuable. Regardless of the value of the present adenovirus vaccine, the observation that a large percent of these allergic children have had this sort of viral infection confirms our clinical impression that these constitute a large number of the respiratory infections of children.

A brief word about the other viral infections, which include the childhood diseases, and vaccinia. The reason for remission of allergy during and after measles, german measles, and occasionally mumps, and chickenpox, is still a mystery. The horror of eczema vaccinatum is best illustrated in Figure 1, which shows such a patient as an infant and at 10 years of age with chronic atopic eczema and moniliasis. The most common exposure is a vaccinated pre-school sibling.[2]

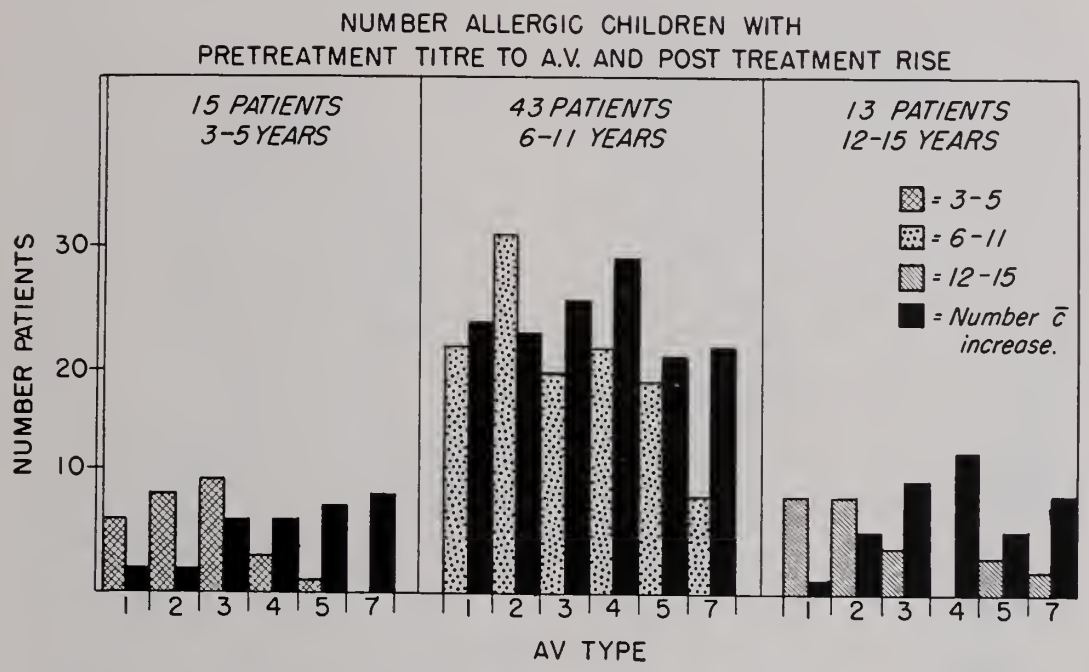

Table 5—Allergic children with pretreatment neutralizing antibody titre $>$1:8 to types 1-5, and 7, adenovirus, and those with increase in titre after vaccine treatment.

The ways in which bacterial infection may increase an allergic reaction are thought to be:

1. by the local effect of the infection.
2. by secondary changes at the site of infection such as changes in secretions, etc.
3. by some general stress on the individual or
4. by the effects of hypersensitivity to the infecting agent.

In some children one or more of these will predominate. It would seem that in most instances the actual infection is more important than the hypersensitivity, and for this reason, we feel that no effort should be spared to treat all infections promptly, vigorously, for an adequate time (usually longer than for non-allergics) and to search for source of exposure.

We have alluded to the reactions of the child himself, in respect to immunity and resistance. Much interest now centers on the gamma globulin level as an index of ability to make immune antibodies, and as a reflection of the antibody level.

In an effort to learn whether gamma globulin level was related to a tendency to infection in allergic children, we have studied the electrophoretic pattern in 283 allergic children.[3] We could find no significant difference between the levels of gamma globulin in those clinically free of infection and those who were infection prone. The values of a few of these children are shown in Figure 2. While it appears that there may be a trend for lower values in some of the children repeatedly ill, the range of values in any group is such that the differences are more apparent than real. Therefore, unless a child exhibits a significantly low level of gamma globulin there is little reason to use this for treatment of a non-specific sort.

A study recently reported by Goldfarb et al,[4] of six aggammaglobulinemic families, shows many members with abnormally low or high gamma globulin levels. He finds a significantly large number of these persons with allergy and rheumatoid arthritis. He also finds a group of hypogamma globulinemics with allergy, in whom he detects a family pattern similar to that of the agammaglobulinemics. This may mean that a new avenue for the genetic study of some of the allergic population can be explored.

The sum total of a child's resistance or immunity is the product of his previous experience with infection, and the integration of all the body defenses. It is futile to over emphasize any one factor, and one must constantly remind himself that many of these parts of the puzzle have not yet been fitted in place.

Fig. 1—Eczema vaccinatum in 4 month infant.
B. Same patient at 10 years, with chronic atopic eczema and moniliasis.

The allergic diseases themselves have much to do with directing the way an infection expresses itself. The child with allergic rhinitis tends to have tonsillitis, sinus and ear infection, and sino-bronchitis. The child with asthma tends toward bronchitis, bronchiolitis, pneumonia, and atelectasis. The child with eczema seems to be unusually prone to infection, and while his skin is most vulnerable, the incidence of otitis and pneumonia, and tonsillitis is high. Nephritis occasionally occurs in these children who have repeated streptococcal infections. The allergic symptoms are regularly made worse by most intercurrent bacterial infections, as we have noted in some of the case histories presented, and as we all have seen repeatedly. It has seemed to us that whenever the symptoms of an allergic child stubbornly resist anti-allergic treatment that one more often than not finds a complicating infection.

In general when allergic symptoms are under good control, the allergic child reacts to infections much as does a nonallergic child. This in itself is a good and early index of degrees of improvement or relapse in allergic children.

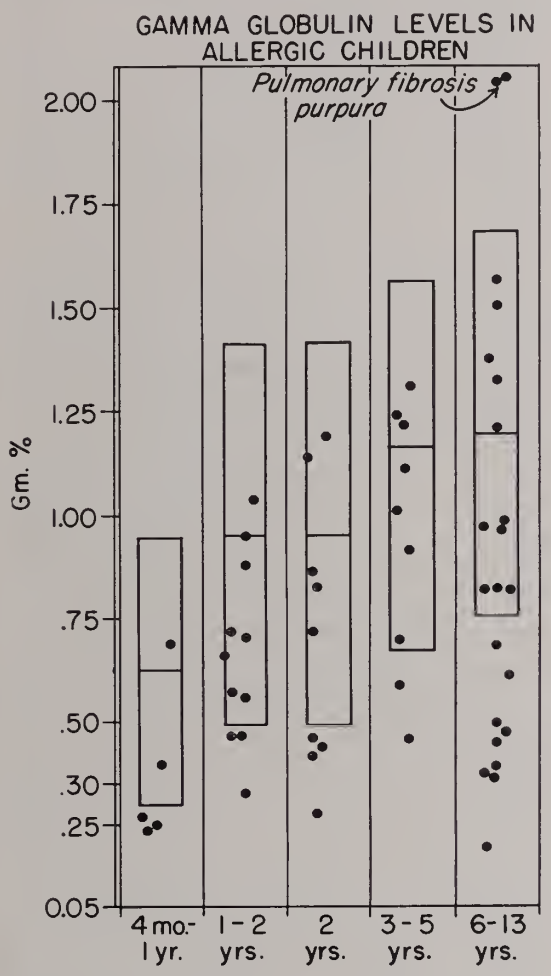

Fig. 2—Gamma globulin levels in allergic children. The horizontal line in each bar represents the mean value of gamma globulin. While there was no significant difference between infected and noninfected children, the values outside the bars were principally found in infected children.

SUMMARY

In summarizing the problem of infection and the allergic child we have discussed the need for accurate diagnosis of the infection and vigorous specific treatment. We stress the importance of including the entire family in a search for exposure to infection, as this is the single largest cause for relapses and recurring infections.

Adenovirus vaccine as it is currently available, and with future advances, may offer a means of added protection for selected allergic children.

Gamma globulin levels are not abnormal in allergic children. Gamma globulin has not been shown to be a decisive factor in most of a rather large group of allergic children recently studied. In selected cases a low level may be present, which may be a family characteristic, and which may play a part in increasing susceptibility to infection.

Each allergic disease tends to have its own pattern for determining the way in which infections will appear in children, and the better controlled the allergy, the less likely is infection to precipitate allergic relapses.

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A Workable Program for Senile Mental Changes

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In the treatment of elderly patients one finds that there is no miracle drug to clear up their symptoms. Rather, as in the treatment of patients of any age, success depends on precise diagnosis and specific treatment.

IN GERIATRIC PRACTICE there is a daily need to sedate a disorderly old man or woman or awaken a somnolent one. The narrow margin between sedation and coma or alertness and mania presents a therapeutic dilemma. What is desirable may be dangerous, and what is safe may be ineffective. Many new drugs affecting mental behavior have been introduced during the last five years. We will review our own studies with representative tranquilizers and analeptics in treating the mental changes that accompany senility and also present our own program for dealing with these changes.

First of all what are senile mental changes? They are mental alterations occurring with aging which are characterized by confusion, lack of alertness, disorientation, poor memory and not infrequently a lack of judgment and even mania.

Five years ago we noted that as our efforts to rehabilitate many of our elderly patients at the Onondaga County Hospital were proceeding, an increasing amount of tranquilizer or analeptic drugs was being given. When mental improvement occurred we were not sure whether the drugs or the rehabilitation efforts had caused it. In order to assess the value of these drugs in the geriatric group, several studies were undertaken and two will be presented.

The first study was carried out using reserpine, a placebo, and methyl-phenidylacetate (Ritalin®). The drugs were first given alone and then in combination.[1] The second study involved the use of a placebo and fluphenazine di-hydrochloride (Permitil®).

Both studies had the following characteristics in common: the placebo and active drugs were identical, the patients and physicians were unaware as to which preparation was being used until the end of the study (double-blind), and all drugs were administered for four weeks.

In the first study 20 men with senile mental changes were selected. The average age for this group was 72 with a range of 51 through 90. Following a two-week control period, each patient was started on either the placebo, 0.25 mg. of reserpine, or 10.0 mg. of Ritalin four times daily. At the end of each four-week course, the drugs were switched until each patient had received all three. Weekly observations were made in the following categories: physical, which included muscle strength, general condition, and bladder-bowel continence; mental, based on orientation, alertness and general interest; and rehabilitation progress, covered by ability to eat, stand, or walk, and desire to be rehabilitated.

Two weeks after finishing the drugs given individually, essentially the same group of patients received the drugs in combination. The same protocol was followed until each patient had a four-week course of Ritalin-reserpine, Ritalin-placebo and reserpine-placebo.

The results of the first study using the drugs individually are presented in Table 1. It can be seen that Ritalin produced mental improvement in eleven patients whereas six improved on reserpine and six on the placebo. The physical and rehabilitation status did not change significantly with any of the preparations. Since there were variations in the degree of change, a quantitative estimate of improvement based on the point scale in Table 2 was utilized. The points were totalled in all three categories and are presented in Table 3. The degree of improvement on Ritalin was now even more impressive than it had been on the initial clinical impression. Re-

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Table 1

The Results of Ritalin and Reserpine Compared

	Physical	Mental	Rehabilitation
Ritalin	41 1W 15NC	111 0W 9NC	61 2W 12NC
Reserpine	21 2W 16NC	61 2W 12NC	11 2W 17NC
Placebo	21 2W 16NC	61 4W 10NC	21 1W 17NC

Table 2

Point Scale for Quantitative Evaluation

NC	= (No change)	0
SI	= (Slight improvement)	+ 2
MoI	= (Moderate improvement)	+ 2
MI	= (Marked improvement)	+ 3
Negative results were subtracted as follows:		
SW	= (Slightly worse)	— 1
MoW	= (Moderately worse)	— 2
MW	= (Markedly worse)	— 3

Table 3

The Net Effect of Treatment with Ritalin and Reserpine

	Improvement	Worsening	Net
Ritalin	+ 37	— 5	+ 32
Reserpine	+ 12	— 7	+ 5
Placebo	+ 13	— 11	+ 2

serpine and the placebo had no appreciable effect. It was incidentally noted that three patients with Parkinson's disease had less tremor and rigidity while on Ritalin.

The results using the drugs in combination were similar to those obtained with the drugs given individually. Ritalin and the placebo caused consistent mental improvement, but Ritalin plus reserpine had no effect, and the same was true for reserpine and the placebo. It appeared that the analeptic qualities of Ritalin were nullified by reserpine.

Although our studies suggested that Ritalin would be useful in treating senile mental states, subsequent work by others employing larger patient groups has not confirmed its value.[2] One could summarize by saying that the drug is useful in some patients especially if Parkinson's disease is present.

The phenothiazine derivatives have had their major use in the management of psychotic disorders and in relieving anxiety in selected neurotic conditions. We anticipated from our results with reserpine that this group of drugs would have limited value in a geriatric group. Fluphenazine di-hydrochloride (Permitil), a phenothiazine derivative with activity similar to chlorpromazine but 10-20 times as potent, was selected for study. The drug has been used by Ayd in 200 patients with both psychotic and neurotic disorders, including some with senile psychoses.[4] He reported that 74% of his overall group had mental improvement after three months of therapy with Permitil.

We selected 28 male patients with an average age of 76 and a range of 55 through 93. All had some degree of senile mental change. Following a two-week control period, each patient was started on 0.5 mg. of Permitil or the placebo once daily. At the end of four weeks the drugs were stopped, and after establishing a new baseline, each patient was started on the reverse of what had been given before for another four weeks.

The mental state was the only area evaluated in this study. Five categories were checked and these are listed in Table 4. A point scale of O-none, 1-slight, 2-moderate and 3-maximal function was used.

Table 4

Mental Categories and Definition for Evaluating Permitil

1. Alertness—Confusion, Responsiveness and Reaction Time
2. Orientation—Time (year, month or season) Place (Poor-house, Hospital, etc.) Person and President
3. Continence—Fecal and Urinary
4. Socialization—Friendliness and ability to get along with others, Irritability and Aggressive Behavior
5. Activities of Daily Living, Ability to Dress, Make Bed, Feed and Care for Personal Needs

A point scale of Zero None, 1 Slight, 2 Moderate and 3 Maximal functions was used.

Because some patients started with very low scores and some with high, the results were tabulated using a percent figure. It was calculated by taking the actual points scored divided by the maximum number of points possible times 100. For example, during the control period of two weeks a perfect score in the five categories would have been 30. The patient actually scored 15; hence, he was 50% of perfect. The difference between the control percent and the Permitil and placebo percent was determined for each patient and has been expressed as a plus or minus value. To illustrate, control 10% and Permitil 20% leaves a difference of plus 10%. The

TABLE 5

RESULTS OF PERMITIL AND PLACEBO THERAPY IN 28 GERIATRIC PATIENTS WITH SENILE MENTAL CHANGES

$$* \% = \frac{\text{Actual Points Scored}}{\text{Maximum Points Possible}} \times 100$$

† = Upper Figure Always First 6 Weeks

Name	Age	Control %*	Placebo	Permitil	Net Change %		Most Improvement Per Patient
					Placebo	Permitil	
1. J. K.	93	7† 23	17	13	+10	−10	P
2. A. B.	88	37 40	50	43	+10	+ 6	P
3. E. B.	78	67 83	93	90	+10	+23	D
4. L. R.	68	27 37	27	40	−10	+13	D
5. L. P.	74	73 90	92	85	+19	− 5	P
6. F. C.	64	60 43	60	67	+17	+ 7	P
7. M. H.	87	33 46	45	33	+12	−13	P
8. C. W.	69	40 40	33	40	− 7	0	O
9. C. S.	55	33 30	32	27	+ 2	− 3	P
10. R. G.	89	73 80	85	85	+ 5	+12	D
11. H. M.	86	70 77	80	53	+ 3	−17	P
12. H. S.	72	76 73	73	76	0	0	O
13. G. W.	65	60 66	63	83	+ 3	+23	D
14. J. G.	83	80 76	68	78	− 8	− 2	O
15. F. S.	78	46 46	56	61	+10	+15	D
16. V. M.	82	63 56	53	55	−10	− 1	O
17. F. B.	79	30 30	30	33	0	+ 3	D
18. W. F.	64	40 40	50	53	+10	+13	D
19. F. B.	63	50 66	55	73	+ 5	+ 7	D
20. G. W.	83	63 42	52	62	− 9	+20	D
21. R. M.	75	76 70	70	85	− 6	+15	D
22. W. O.	79	70 80	82	90	+12	+10	P

TABLE 5—CONTINUED

Name	Age	Control %*	Placebo	Permitil	Net Change %		Most Improvement Per Patient
					Placebo	Permitil	
23. D. A.	84	63 67	75	68	+12	+ 1	P
24. J. H.	82	63 63	62	56	− 1	− 7	O
25. M. B.	79	60 50	54	52	+ 4	− 8	P
26. B. S.	82	40 50	55	78	+15	+28	D
27. F. M.	74	10 7	3	12	− 4	+ 2	D
28. M. T.	62	60 80	86	95	+26	+15	P
	2,137 av. 76.3 55-93				+182 − 58 +124 Av. +4.4%	+213 − 66 +147 Av. +5.3%	11P 12D 5O

totals for the 28 patients and the average percent difference for permitil and the placebo have been tabulated and are presented in Table 5.

There was no significant difference in the percent change between the placebo and Permitil. On an individual basis, eleven patients improved on the placebo, twelve on Permitil and five were either unchanged or worse on either. Five patients had greater than 20% improvement during the study period. Four of these were on drug and one on placebo. We could find no common denominator such as type disease, age group or emotional disturbance to account for the increased response to Permitil, in these cases.

In summary, our overall impression based on controlled studies is that the tranquilizing drugs such as reserpine and Permitil are no better in improving senile behavior than a placebo.

And yet the title of this paper is "A Workable Program for Senile Mental Changes". In reviewing our results, a moderate number of patients have shown marked improvement in their mental state. The key in all these cases has been a proper diagnosis and a remediable medical condition.

Most cases fall into three groups:

1. Patients receiving excess medication, usually of a sedative nature
2. Patients having anoxia, usually due to congestive heart failure but occasionally to severe anemia
3. Patients with hypothyroidism.

To illustrate the first type, excessive medication: Mr. P. B., a 51-year-old man, was transferred from University Hospital with a diagnosis of post-traumatic epilepsy and cholelithiasis. His old history revealed that he had had subdural hematomas, pulmonary tuberculosis and a right lobectomy. He was on Dilantin, Phenobarbital, Compazine, Chloral Hydrate, Pyrabenzamine expectorant, Isoniazid and para-amino salicylic acid at the time of his admission to the County Hospital. He was confused, agitated, dysarthric and had recurring athetoid motions of both arms and legs. He spat on the floor, at the nurses, and kept most of the patients awake at night.

Physical Examination revealed a thin man with athetoid motions of all extremities and tongue. His fundi were normal and neurologic examination revealed atrophy of the lower extremities with absent knee and ankle reflexes. His *Laboratory Data* was normal except for an NPN of 60 mg.%

Hospital Course: All medication was discontinued except for the Isoniazid and PAS. Over a one month period there was gradual improvement with less abusive behavior noted within one week. Convulsions developed again and Dilantin was restarted. His athetoid motions are now less severe, and his major problem at present is restlessness at night.

An example of the second type of disorder, anoxia, is Mr. L. T., a 90-year-old man who had fractured his hip 12 days before admission. He had been transferred from the General Hospital after a suc-

cessful hip nailing. An adequate history could not be obtained because of drowsiness, lack of memory and disorientation.

Physical Examination revealed Cheyne-Stokes respirations, rales at both lung bases and rapid auricular fibrillation. In addition a large fecal impaction was present. *Laboratory* results were unremarkable. *Hospital Course:* the heart failure was treated with digitalis and diuretics, and the fecal impaction was removed. Within three days the mental confusion and disorientation cleared and the patient was alert and well.

The third type of disorder is hypothyroidism, and this is often overlooked as a cause for senile mental change. To illustrate: Mr. J. A., an 86-year-old white man, was admitted to the general hospital with incontinence and mental confusion. He was diagnosed as having a cerebral vascular accident and was also found to have auricular fibrillation with congestive heart failure which had responded well to appropriate therapy. On admission to the County Hospital he was disoriented, confused and generally weak. He was noisy and shouted most of the night and slept most of the day.

Physical Examination revealed an enlarged prostate, pyorrhea and auricular fibrillation with a rate of 72. There was no evidence of a recent stroke. *Laboratory Data* revealed normal skull and chest x-rays. Protein bound iodine (PBI) 3.9 micrograms %, radioactive iodine uptake 7% at the end of 24 hours. The remainder of the tests were non-contributory. *Hospital Course:* He was started on thyroid and over a one to two week period became alert and was no longer noisy. At the present time he is mentally clear.

Our own program in the patient with senile mental changes starts with a thorough assessment of the medical situation even if the patient has had a recent complete workup at a general hospital. Any possible offending medication is removed and pain or anoxia are alleviated. If the underlying problem is pain, morphine and demerol are the most satisfactory drugs. Sedatives, particularly the barbiturates, are used sparingly since they may make the mental changes worse. When a hypnotic is needed, we prefer chloral hydrate. Phenothiazine derivatives are used infrequently but are most helpful when restlessness associated with nausea and vomiting is present. We also use this group of drug in treating cerebellar ataxia, since their property of stimulating the reticular system with the production of Parkinsonian changes is of value in combating cerebellar ataxia.[3]

As a part of the laboratory workup, a PBI is obtained routinely as a screening test for hypothyroidism. Although therapy is simple, effective and inexpensive, the diagnosis is often missed. The PBI has usually been reported to decline with aging. We have reviewed the PBI levels in 40 consecutive male and 20 consecutive female patients. The results are presented in Table 6. The PBI averaged 5.3

TABLE 6
PROTEIN BOUND IODINE LEVELS (micrograms/100 cc.) IN 60 CONSECUTIVE GERIATRIC PATIENTS

No.	Pts.	Sex	Average Age	Average PBI
1.	40	Male	70.5 (44-91)	5.3 (2.6-10.2)
2.	20	Female	71.3 (45-97)	5.5 (3.2-8.7)

micrograms % for the men and 5.5 for the women, both considered normal values. Since the average age for this group of patients was 70.9 with a range of from 44 to 97, we do not feel that the PBI levels decrease as a natural consequence of aging. A PBI below 5.0 micrograms % is suspicious and below 4.0 is highly suggestive of hypothyroidism.

The last part of our program consists of nonspecific measures aimed at good patient care. These consist of keeping patients out of bed and active in physiotherapy, when possible, avoiding fecal impactions, watching for inadequate dietary intake, and using a multivitamin supplement.

In conclusion, drug therapy for senile mental change is of limited value. The analeptics may improve mental behavior, but the tranquilizers do not. The keystone of a workable geriatric program is the search for the cause of the mental changes. If a specific cause can be uncovered, therapy is often surpisingly effective.

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Sarcoma of the Soft Parts

Experience With Eighty-Five Cases

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Only in recent years have large series of sarcomas of the soft parts been analyzed. Eighty-five such tumors were seen at the Medical College of Virginia Hospital from 1950 to 1958 and are reported.

A REVIEW of our experience with soft part sarcomas has seemed worthwhile, in view of the still meager reports of studies of large series of cases, and in view of varying indecisions concerning the best methods of treating them. The soft parts have been defined as the soft tissues of the extremities, head and neck including the orbit, and the trunk, with the bones, lymph nodes, parenchymatous organs and peripheral and central nervous system excluded. The serous membranes, except those in the extremities, are also excluded. While some authors include the retroperitoneum with the soft parts, I have elected to exclude it, as it is a special compartment ill-suited for total extirpation designed to adequately encompass a malignant tumor.

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Most of our information concerning sarcomas of the soft parts, their classification, and their description comes from the writings of Arthur Purdy Stout.[5,7] He has added meaning to a very difficult subject, certainly for pathologists, and (I can add with confidence) for surgeons. As late as 1951 Stout deplored the fact that not a single monograph had been written on this problem.

With the publication in 1958, however, of Pack and Ariel's treatise on *Tumors of the Soft Somatic Tissues*,[4] a great void has been filled. These authors, in collaboration with a number of other well-known specialists, recount their experiences with the many varieties of soft part malignant growths that challenge both the surgeon and the pathologist. A formidable number of 717 cases are thus analyzed.

MATERIAL AND METHODS INCLUDING CRITERIA FOR DIAGNOSIS

All soft part sarcomas studied at the Medical College of Virginia from August 1, 1950, to December 31, 1958, were reviewed. All slides were re-examined, and special stains accomplished where indicated. Eighty-five cases were thus found which could be classified into nine varieties of sarcoma (Table I).

It was not always possible to distinguish well-differentiated fibrosarcoma from the various benign fibromatoses.[8,9] When reasonable doubt existed, the lesions were eliminated from this discussion. By the

TABLE I

TUMOR	Total	Followed	Recurrence	Metastasis	Died Tumor
Fibrosarcoma	28	19 (67.8)	3 (10.7)	4 (14.3)	3 (10.7)
Liposarcoma	15	15 (100)	3 (20)	2 (13.3)	4 (26.6)
Rhabdomyosarcoma	16	16 (100)	4 (25)	6 (37.5)	10 (62.5)
Leiomyosarcoma	2	2 (100)	1 (50)	0	0
Reticulum cell sarcoma	7	7 (100)	0	3 (42.8)	6 (87.5)
Myxoma	9	9 (100)	0	0	0
Kaposi's disease	3	3 (100)	1 (33.3)	0	0
Hemangioendothelioma	1	0	1 (100)	0	0
Hemangiopericytoma	4	3 (75)	1 (25)	1 (25)	1 (25)
Totals	85	74 (87)	14 (16.5)	16 (18.8)	24 (27)

The figures in brackets indicate percentages.

same token extra-abdominal desmoid tumors[3] were excluded when this seemed fairly certain from the histologic standpoint. Since considerable overlapping in the histologic criteria of extra-abdominal desmoids versus well-differentiated fibrosarcoma exists, questionable lesions were grouped with the fibrosarcomas. All true abdominal desmoid tumors were excluded (Figs. 1-5).

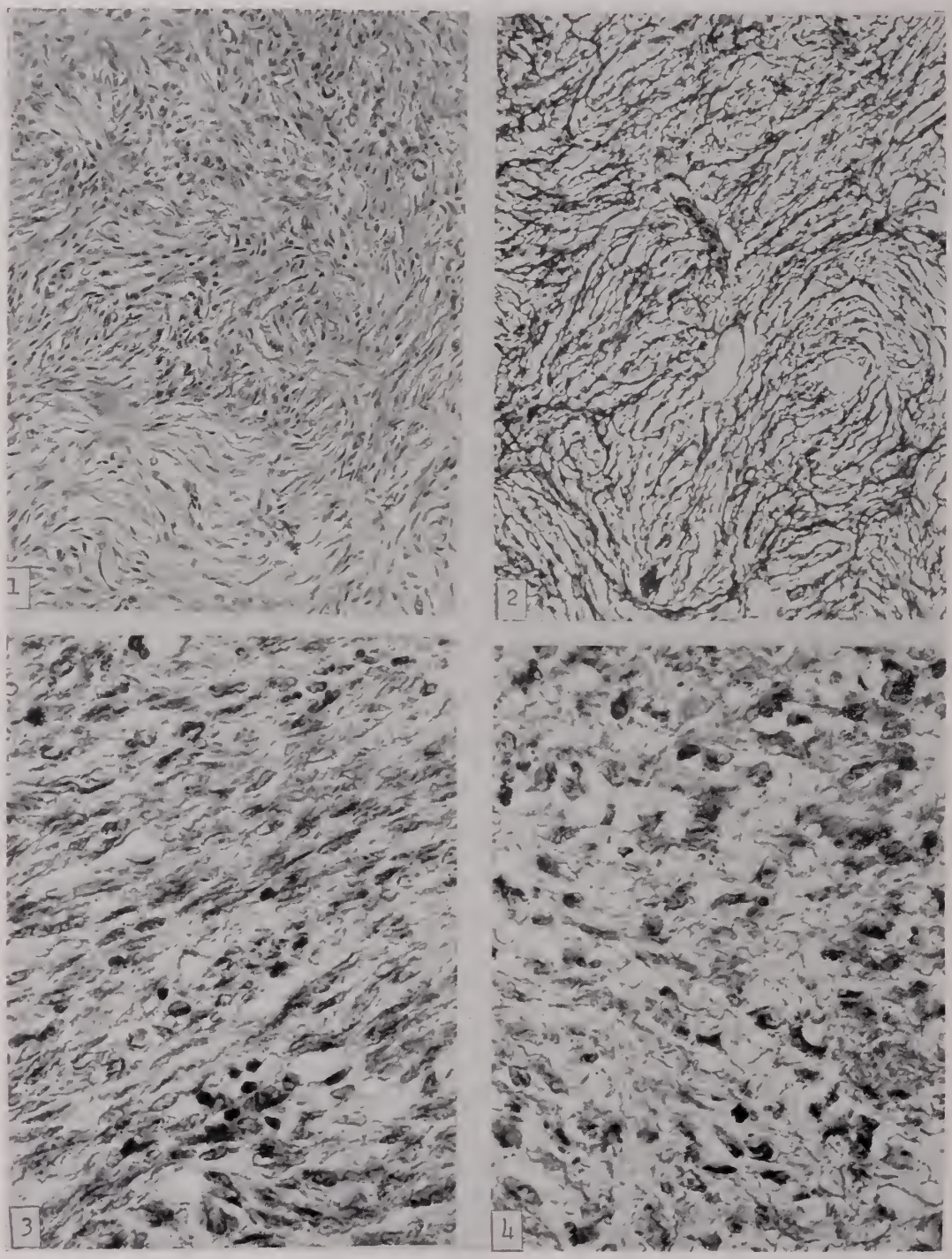

Fig. 1—Well-differentiated fibrosarcoma. Note uniformity of fibroblasts and abundant collagen fibrils.

Fig. 2—Reticulum stain of well-differentiated fibrosarcoma. Note interlacing silver-positive fibrils.

Fig. 3—Moderately well-differentiated fibrosarcoma. Collagen fibrils still prominent but tumor cells show more pleomorphism.

Fig. 4—Poorly-differentiated fibrosarcoma. Note paucity of collagenous tissue and greater pleomorphism of tumor cells.

The diagnosis of liposarcoma[10] was made only when suitable fat stains were available and fat positive droplets were demonstrated in *viable* tumor cells. Degenerated areas within a tumor are often positive for fat and these findings were discounted. The liposarcomas were divided simply into two types: well-differentiated myxoid and poorly-differentiated myxoid types (Figs. 6-7).

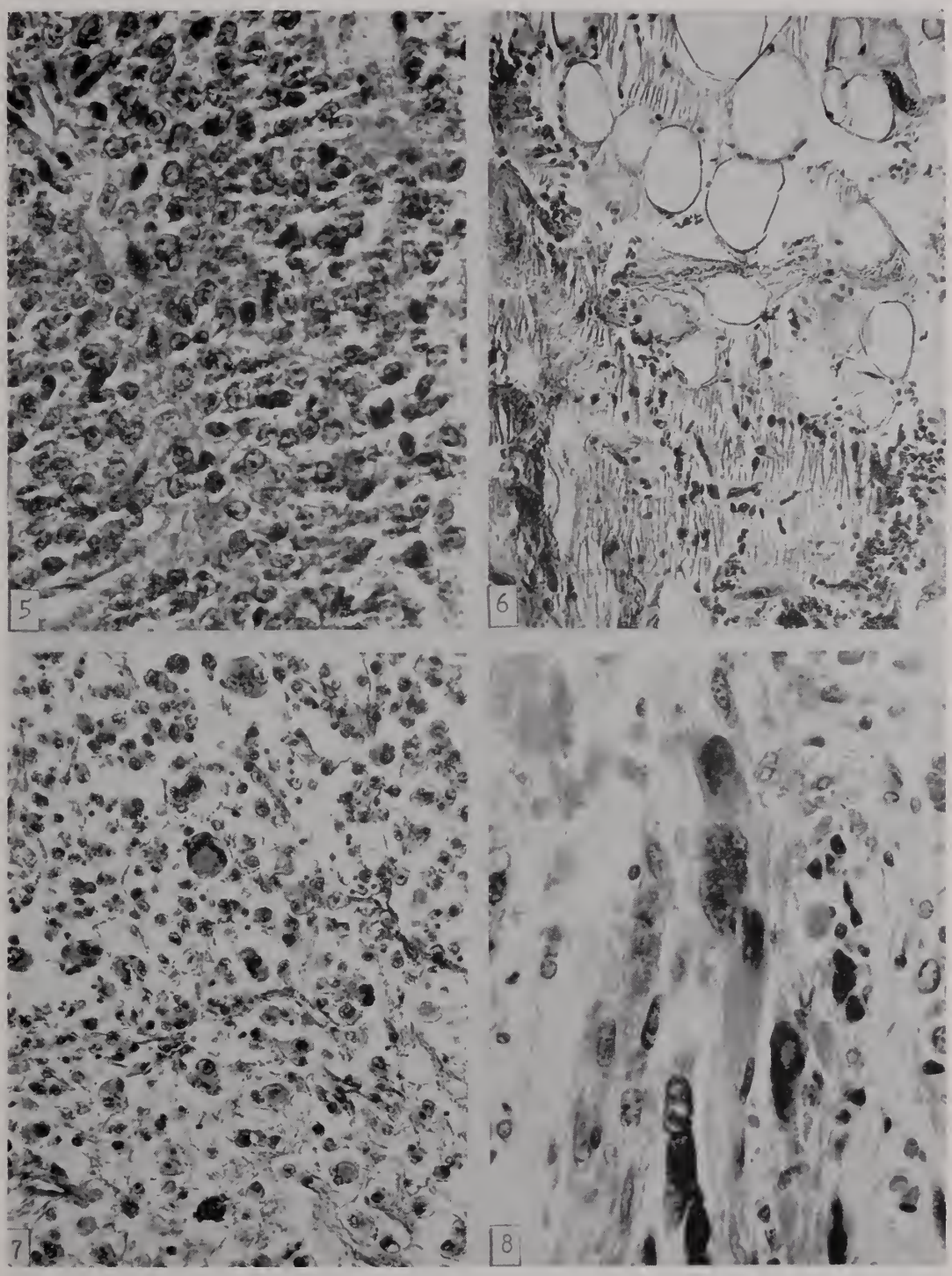

Fig. 5—Undifferentiated fibrosarcoma. Tumor cells are anaplastic and collagen virtually absent.
Fig. 6—Well-differentiated liposarcoma. Adult fat associated with more primitive areas, and a few bizarre lipoblasts.
Fig. 7—Undifferentiated liposarcoma. Note great pleomorphism of tumor cells and multinucleated elements.
Fig. 8—Pleomorphic rhabdomyosarcoma. Bizarre "strap" cells clearly shown.

While three different varieties of rhabdomyosarcoma are described,[2] the pleomorphic type was the only one seen in our laboratory. Cross-striations, a desirable feature for diagnosis, was rarely noted. The presence of pheomorphism, "tadpole", "strap", and "racquet" cells sufficed to categorize the tumor as a rhabdomyosarcoma. (Figs. 8-9).

The leiomyosarcoma[11] was relatively easy to distinguish by means of the trichrome stain which accentuated the presence of myofibrils (Fig. 10).

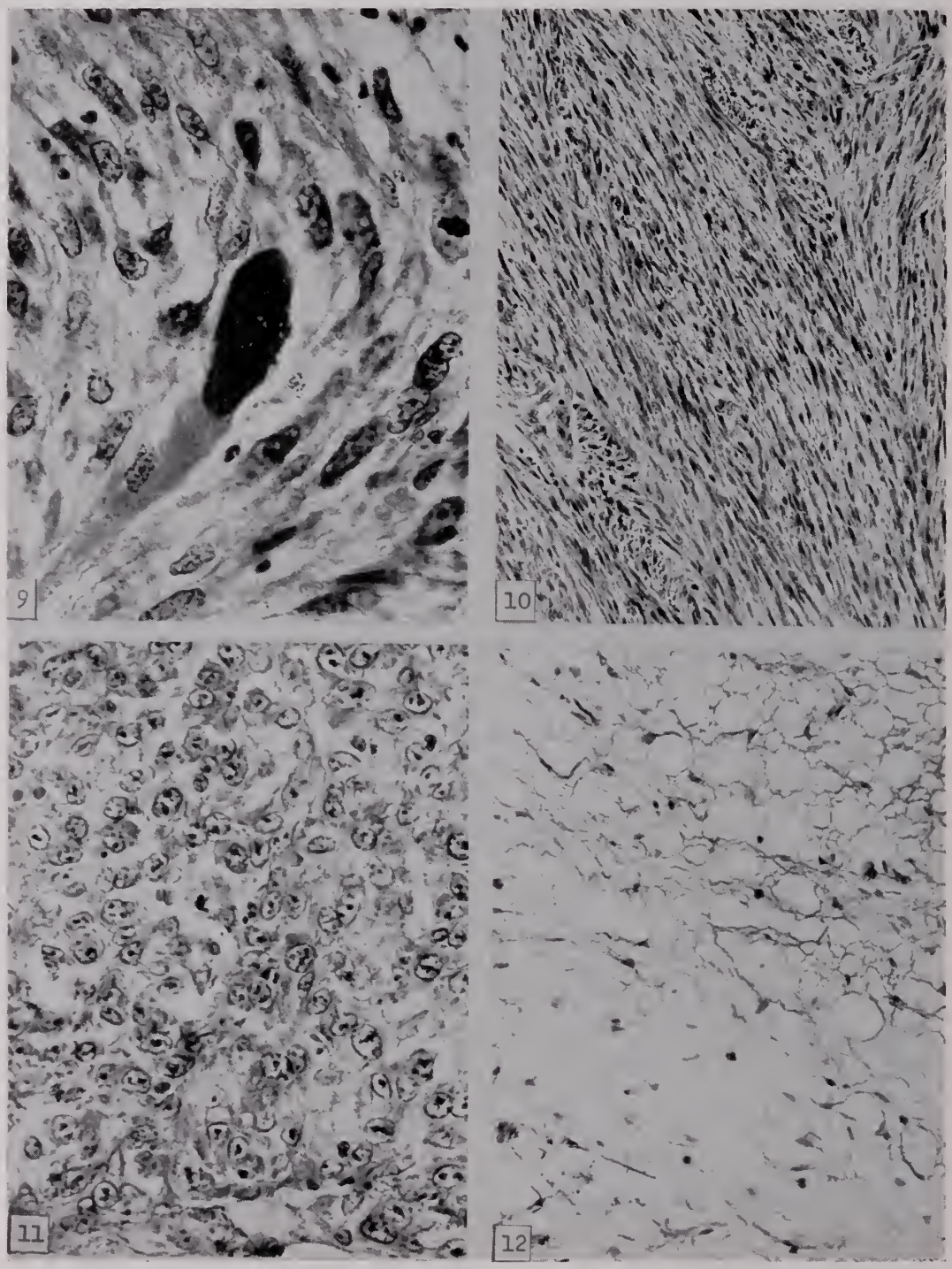

Fig. 9—Pleomorphic rhabdomyosarcoma. Characteristic giant cell shown in center of field.
Fig. 10—Leiomyosarcoma. Note characteristic palisading of tumor cells.
Fig. 11—Reticulum cell sarcoma. Tumors cells are large and uniform with scanty stroma.
Fig. 12—Myxoma. Note resemblance to Wharton's jelly.

The reticulum cell sarcoma was characterized by a monotonous sheet of large rounded cells with little intervening stroma. Reticulum stains varied in their demonstration of reticulum fibres, but when these were abundant they usually wrapped individual cells (Fig. 11).

The myxoma[12] is only locally malignant and does not metastasize. Typically it had the appearance of

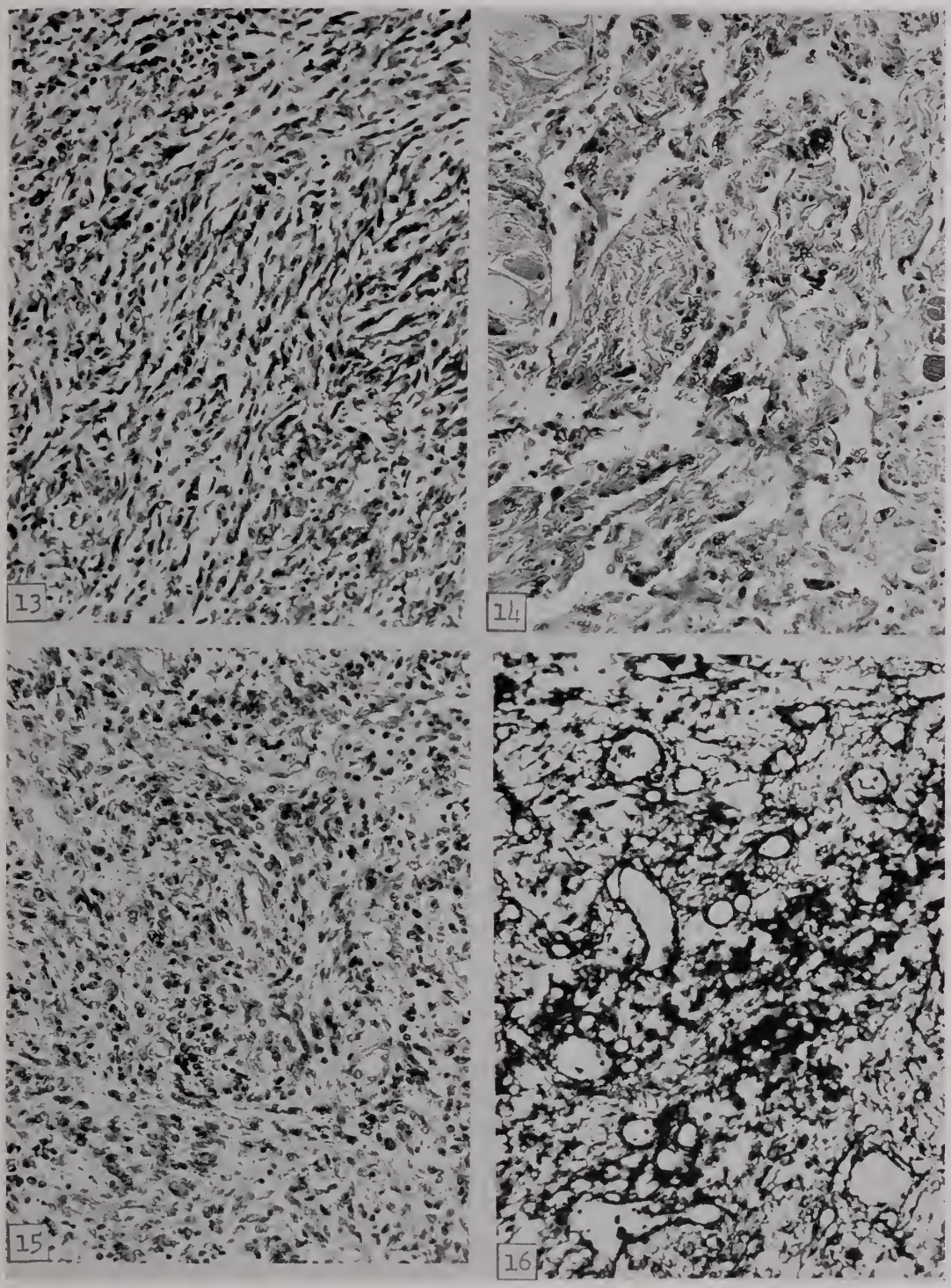

Fig. 13—Kaposi's disease. Note vascular slits and spindle cells.
Fig. 14—Malignant hemangio-endothelioma. Vascular spaces with bizarre endothelial cells permeating within dense collagenous stroma.
Fig. 15—Hemangiopericytoma. Capillary channels surrounded by proliferating pericytes.
Fig. 16—Reticulum stain of Fig. 15 to delineate the vascular channels with the cellular proliferation outside these spaces.

Wharton's jelly, and the cells did not contain fat. Some of the tumors showed sclerosis of the stroma, with only scattered remnants of basophilic matrix remaining (Fig. 12).

The features of Kaposi's disease have been well described by Cox and Helwig.[1] Vascular slits accompanied by proliferating spindle elements were the typical findings (Fig. 13).

Hemangio-endothelioma[13] is used synonymously with angiosarcoma and is a malignant tumor of endothelial cells. To make this diagnosis it was necessary to demonstrate the presence of sinous channels lined by malignant endothelial cells and infiltrating the stroma (Fig. 14).

The criteria of hemangiopericytoma[14] have been established by Stout. The silver stain was always used to delineate the proliferation of tumor cells outside the vascular channels (Figs. 15-16).

For simplification, mesenchymoma was not used in classifying any of these tumors. When several tumor types were found in any one lesion, the predominant type served as the basis for classification.

No synovial sarcomas were originated at the Medical College of Virginia during the stated eight-year period, though two cases were seen in consultation.

INTERPRETATION OF FINDINGS

The problem of follow-up is always painstaking, especially when patients have no complaints after their surgery. Knowledge of death was secured generally by correspondence, either through a member of the family or through the referring physician.

Patients who were alive were contacted and asked to visit their surgeons if they had not been seen in over one year. The tumor clinic was extremely helpful in following many of our patients. At times it was necessary to contact patients by telephone in order to decide whether or not recurrence had taken place. A letter from a patient assuring us that he had no difficulty sometimes had to suffice.

Follow-ups were considered complete if patients were seen within six months of the time this study was made. As can be seen from Table I the total follow-up rate was 87% and the lowest achievement was in the fibrosarcoma group (67.8%).

Since, with the exception of the fibrosarcoma group, the follow-up was practically 100%, the recurrence, metastatic and death rate can be considered as determinate figures. For the fibrosarcoma patients, these rates can only be considered accurate if we assume that the nine cases lost to followup are in the same status as when last seen by their physicians. Using only the followed cases (determinate figures), the recurrence, metastatic and death rates respectively are 15.8%, 21% and 15.8%. I feel quite certain that these figures are far too high, since many of the patients with well-differentiated tumors were probably cured and thought it unnecessary to make return visits.

A glance at Table I will immediately impress the reader with the gravity of the rhabdomyosarcomas and the reticulum cell sarcomas. The death rate of 62.5% and 87.5% respectively certainly offers a dim prognosis for patients harboring these tumors. Since the four deaths in the liposarcoma patients occurred only in those with poorly-differentiated tumors, it seems worthwhile to distinguish between the poorly-differentiated and the well-differentiated neoplasms, as this may have a bearing on the possible choice of treatment and the ultimate prognosis.

The results of the cases analyzed by Pack and Ariel[4] in their text are given for comparison. The fibrosarcomas were divided into two groups: dermatofibrosarcoma protuberans, and fibrosarcoma proper. There were 39 cases in each group. Of the dermatofibrosarcoma, none died of their disease or developed metastases. The recurrence rate was 20.5%. The fibrosarcomas showed a recurrent and metastatic rate of 56% and 21% respectively. The five year therapeutic survival was 81.3%. Of the liposarcomas, 64 determinate cases were suitable for five-year follow-up, and the death rate was 60.9%. Sixty-five determinate cases of rhabdomyosarcoma showed a death rate of 66.1%. With Kaposi's disease (36 cases) there was a five-year cure rate of 19% with an average survival of eight years. The five-year cure rate of angiosarcoma (malignant hemangio-endothelioma) was a mere 9%.

COMMENT

What should be the surgeon's therapeutic approach to a soft tissue tumor when confronted with a patient harboring a mass which may be malignant? In my opinion, before any radical surgical extirpation is attempted, the surgeon should have full knowledge of the type of disease he is dealing with. In other words, with the possible exception of small masses up to 3 cm. in diameter, local excision or enucleation of the mass from its bed is to be condemned. If the mass is only locally excised, and the report of a sarcoma is later furnished by the pathologist to the chagrined surgeon, the only recourse is now to "remove the previous operation". This is then done with the full realization that considerable spillage of tumor cells has occurred within the area of the

neoplasm. Whether the surgeon may have been responsible for dissemination of tumor via the blood vessels during the manipulative procedure is an unanswered question, but certainly theoretically possible. Of course, the surgeon might obtain dubious comfort by resorting to amputation in the secondary procedure, but may not wide local excision have originally sufficed?

I have often been asked about the value of frozen section in attempting to make a diagnosis in the operating room. To this question I can state, without reservation, that this is always worthwhile. While it is true that an exact diagnosis of the type of sarcoma is rarely made by frozen section, there are times when it can be made with a high degree of certainty. Under such circumstances the surgeon can proceed with the proper procedure, provided the patient has previously been informed as to what the surgical consequence might be. If an exact diagnosis cannot be made on frozen section, the pathologist can at least determine that the biopsy specimen is adequate and probably representative. The surgeon can then close the wound, which consists only of an incisional wound, and await the result of the permanent section report. Finally, armed with the necessary information about the tumor, the surgeon can now accomplish his wide removal without ever visualizing or manipulating the tumor.

What type of wide surgical removal is necessary for a soft part sarcoma? This will depend upon the type of neoplasm as diagnosed by the pathologist. Since myxomas and dermatofibrosarcomas do not metastasize, wide local excision is all that is necessary. A margin of uninvolved tissue 2.5 to 3 cm. on all sides of the tumor should suffice. The well-differentiated fibrosarcomas and liposarcomas rarely metastasize, and can only be handled well by wide local excision. For the larger tumors embedded in muscle, a wise policy is to remove the entire muscle from its origin to its insertion without ever visualizing the growth.

The poorly-differentiated liposarcoma is a dangerous lesion, and a wise course might be to resort to immediate amputation, the level depending on the location of the neoplasm. If the surgeon should elect to preserve the limb, he has the responsibility of convincing himself that his excision is really wide enough.

Most reticulum cell sarcomas and rhabdomyosarcomas had best be treated by initial amputation. It is understood, of course, that a chest roentgenogram has been taken prior to any surgical procedure in order to rule out pulmonary metastases.

Radiation therapy is mentioned here as a palliative procedure. We have not found it particularly helpful in any of the sarcomas with the exception of liposarcoma and Kaposi's disease. The reticulum cell sarcoma thought generally to be a radiosensitive lesion has not responded well to radiation therapy at the Medical College of Virginia. Kaposi's disease is generally a multicentric problem, and since it is radiosensitive, considerable palliation and often "cure" can be obtained by radiation.

SUMMARY

1. An analysis of soft part sarcomas during an eight-year period at the Medical College of Virginia has been made.

2. A plea is made for accurate diagnosis before definitive surgery is attempted.

3. In order to improve the results in cases of reticulum cell sarcoma, rhabdomyosarcoma, poorly-differentiated liposarcoma and fibrosarcoma, radical surgery at the earliest possible time is advised. For these tumors amputation of extremities may be the radical procedure of choice.

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Open Wringers As Child Hazard

Washing machines with power-driven open wringers are a continuing hazard to children, according to an article in the (October 1st Journal of the American Medical Association.

During the six-year period ended Jan. 1, 1960, 423 children were admitted to Children's Hospital, Louisville, Ky., for treatment of wringer injuries, Dr. Hugh B. Lynn and Richard C. Reed reported.

"The labor-saving device known as the washing machine with its hazardous, power-driven open wringer, has introduced the modern parent to horrors quite unknown to the primitive woman whose washday chores consisted of pounding the wash out by hand."

"Despite tremendous advances in design and production of the completely automatic washer-dryer combination, many nonautomatic machines with power-driven open wringers are in use and are still being manufacturered. It is not just the regular Monday washday that offers this hazard. Youngsters aged 2 to 6 years (the period in which these injuries most commonly occur) are apt to be house-bound and bored during bad weather on any day and at any time of the year. The fascinating rollers offer a new interest to the inquisitive child."

There is a great variation in the amount of damage a wringer can cause. It appears that the quicker the motor is stopped, the quicker the compression is removed, and the less the damage.

"By all odds, the best treatment is preventive. Prevention implies an effort to perfect safeguards on electric washing machines and the education of parents to the hazards of the wringer."

The A.M.A. department of health education makes these suggestions for preventing such accidents:

—Begin a child's safety education at the age of two by using forethought and example.

—Be sure the wringer has a safety release.

—Unplug the washing machine when it is not in use and keep the cord out of reach of the children.

—Keep young children away from the washing machine when it is in use.

—Never leave a young child alone in the house, not even for a few minutes.

Decortication for Empyema and Hemothorax

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There have been several additions to the medical management of empyema in recent years. When these measures fail to clear the pleural cavity, however, early surgical decortication is indicated.

DECORTICATION is a procedure grossly misunderstood by the average physician, difficult to describe, and perhaps more difficult to envisage as a helpful therapeutic measure. The value of of decortication lies in the removal of the thick, inflammatory "peel" from the surface of the lung affording two advantages—1—the proper expansion of the partially collapsed and trapped lung so that improved pulmonary function can occur and 2—removal of the infected "peel" so that continued or prolonged infection does not occur.

The effect of an empyema with thick pleural "peel" which is not evacuated, or an organizing hemothorax which cannot be removed by a chest catheter, will be the eventual formation of a fibrothorax or dense scarring with a narrowing of the intercostal spaces, decreased pulmonary ventilation on the side involved, and a trapping of the lung in a partially collapsed position. It has been shown by many workers[1,2,3,4] that decortication improves pulmonary function by the mechanical improvement of ventilatory capacity as well as the prevention of a "fixed" or fibrothorax chest with poor respiratory excursion.

EMPYEMA

The treatment of empyema has gone through essentially three stages. 1—the stage prior to 1941 when open drainage of the empyema space was performed without the benefit of antibiotics. Dr. Evarts Graham was the first to realize the importance of closed drainage to prevent mediastinal shift with its attendant pneumothorax. This important contribution of the empyema commission during World War I was responsible for saving many lives in the influenza epidemic of that time.

Many physicians remember the odor of draining empyemas and foul smelling dressings on such patients. These often drained for many months or years, resulted in prolonged loss of activity to say nothing of the loss of productivity of the patient, his debilitation, both physically and financially.

2—The second phase of treatment existed between 1941 and 1951. This we call the antibiotic era. Early in this period the use of sulfonamides in conjunction with therapeutic bronchoscopy, closed drainage of the empyema, and later in the 1940's by the use of broadspectrum antibiotics made a real contribution to the more rapid improvement of these pitiful patients.

Decortication as a definitive procedure had not yet been adequately emphasized, although it had been done sporadically by thoracic surgeons for a number of years. In 1949, Wright[5] and Weinberg[6] described decortication for pulmonary tuberculosis and to free the trapped lung following pneumothorax. In 1945 Burford[7] described early decortication for post-traumatic empyema. In the latter part of the 1940's the use of decortication was becoming an adequately described and recommended procedure by thoracic surgeons in the treatment of post-traumatic and post-infectious empyema as well as other conditions—pneumothorax with inadequate expansion of the lung, organized hemothorax and tuberculous empyema.

The next phase of the treatment existed from 1951 until the present time, when the use of antibiotics, intrathoracic enzymes (Streptokinase, Streptodornase) as well as early decortication, significantly reduced the morbidity and the complications previously attendant to the empyema patient.

PRESENT MANAGEMENT OF THE EMPYEMA PATIENT

Current management of the empyema patient usually falls into the following two categories—first, medical and second, surgical. The confusion as to where the medical treatment leaves off and the sur-

gical should begin constitutes an unfortunate delay in some cases. The post-infectious or post-traumatic empyema should logically be treated with massive antibiotics, intercostal catheter drainage, as well as therapeutic bronchoscopy, intramuscular vitamins, blood transfusions when necessary, etc. Intrathoracic enzymes, that is Streptokinase and Streptodornase, should be placed into the chest through the chest catheter in an attempt to lyse the fibrinous products and if possible to avoid a decortication procedure. Occasionally these enzymes work dramatically causing a rapid removal of thick and tenacious material into the chest bottle. These enzymes are given into the chest tube daily for three days, the chest tube clamped for approximately three hours each day and then opened for drainage into the closed bottle system. If, at the end of this time, no drainage has occurred, further use of the enzyme seems illogical to this writer.

If, on the basis of this combined treatment of antibiotics, closed chest drainage, intrathoracic enzymes, etc., the lungs are obviously surrounded by a thick, pleural "peel" with a haze demonstrable on x-ray or a partially expanded lung with fluid levels, then it seems only obvious that a decortication should be promptly performed. If decortication can be done

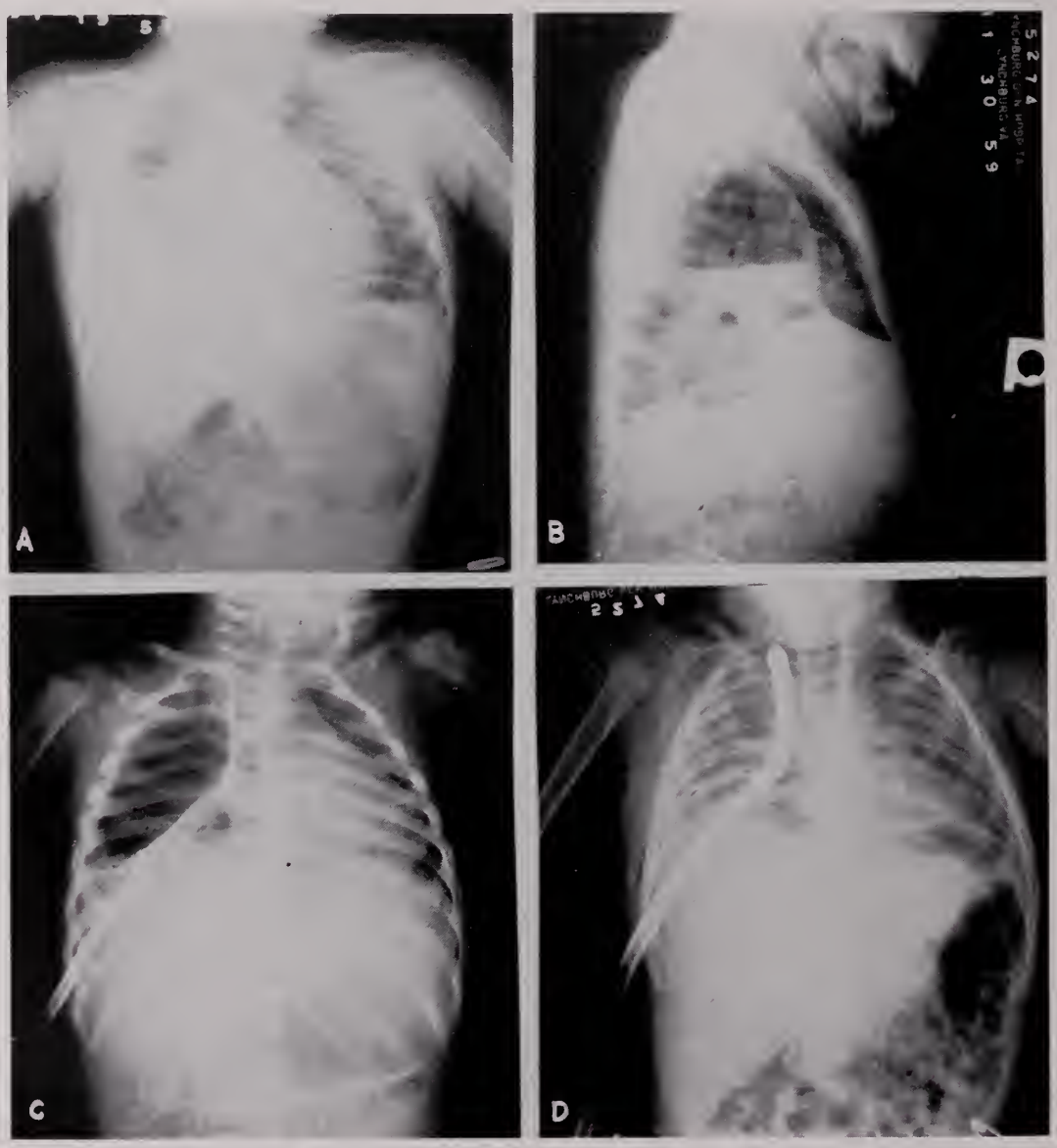

Fig. I—Demonstrates an infant with pleural empyema of the right chest, partially collapsed and rapped lung with inadequate expansion of the trapped lung after insertion of intercostal catheter. The last x-ray (D) demonstrates adequate expansion of the lung after removal of the thick, infected pleural "peel". Child made an uneventful recovery.

prior to a six to eight week period it is a simple technical procedure with little blood loss and no air leakage from the lung surface. If the empyema is allowed to become organized the decortication procedure is then associated with a significant blood loss as well as tearing of the peripheral alveolus, air leakage, etc. which simply adds to the morbidity of the procedure.

DECORTICATION—DESCRIPTION OF THE PROCEDURE

The surgical procedure of decortication is, I believe, poorly understood by the average physician and should be clarified. The method of decortication involves removal of a rib in the adult and an intercostal incision in the child. After the pleura has

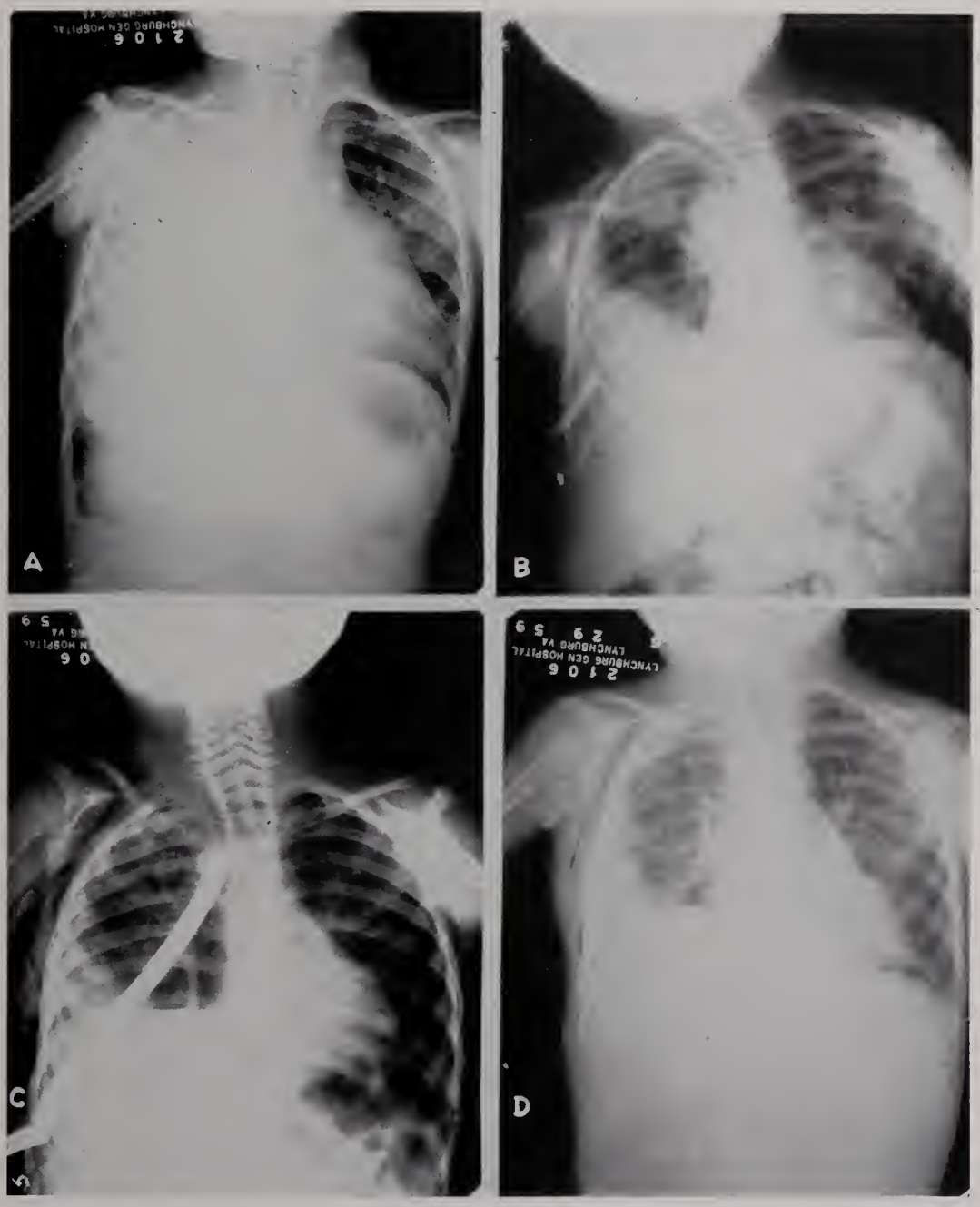

Fig. II—Demonstrates an infant with a massive right pleural empyema. (B) demonstrates inadequate expansion of the lung and removal of the empyema despite intercostal catheter drainage, interpleural enzyme injection, antibiotics, etc. (C) and (D) demonstrate adequate expansion of the lung after pleural decortication and right lower lobectomy for destroyed and abscessed right lower lobe. The child made an uneventful recovery.

been identified it will immediately be seen to be thick and opacified, so that the underlying lung cannot be visualized. The finger of the surgeon is passed in the extra pleural space between the chest wall and the pleura, both superiorly and inferiorly, medially and laterally, until a rib spreader can be placed in position and further mobilization of the infected pleura performed.

If this procedure is performed prior to a six to eight week period the plane of dissection is clear and essentially bloodless. The pleura strips easily away from the chest wall with a minimal blood loss. If fibrosis has occurred the procedure, as mentioned, can be more difficult. After the entire pleura is stripped circumferentially, it is opened and the sac stripped from the lung surface. Visceral pleurectomy is extremely important so that the lung can adequately expand and fill the entire chest cavity at the

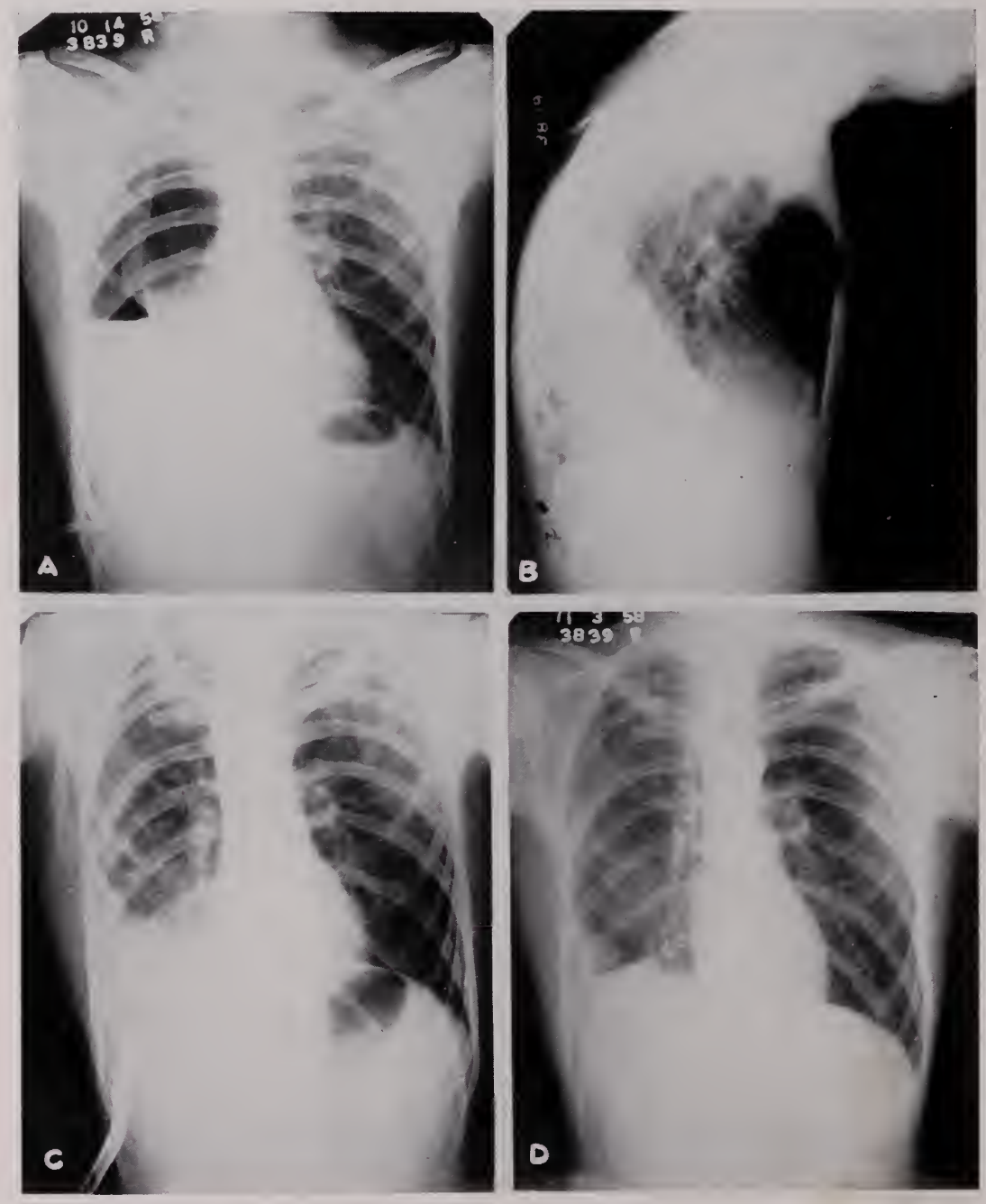

Fig. III—(A) and (B) demonstrate a collapsed and trapped lung and pleural empyema following pneumonia. This was inadequately treated by intercostal catheter drainage. (C) and (D) demonstrate adequate expansion of the lung following pleural decortication. Patient made an uneventful recovery.

completion of the operation. Usually there is an adequate layer over the surface of the lung so very little if any air leakage occurs. The sac, that is visceral and parietal pleura and its contained pus, is then removed. The lung should then expand with positive pressure applied by the anesthesiologist until it fills the entire chest cavity. A chest tube is placed in the chest and the lung will seal to the chest wall by a process of coaptation and fibrosis so that further collapse is impossible.

If the lung cannot be fully expanded by positive pressure through the endotracheal tube, then more visceral pleura should be removed so that adhesive bands do not act as trapping agents.

The patient's course following such a procedure is usually benign. Removal of the infected sac returns the patient to a less toxic state. It acts much as removal of an infected membrane from any portion of the body. Antibiotics are continued throughout the postoperative period and the patient usually is discharged about the tenth postoperative day. With adequate reexpansion of the lung, removal of the infected membrane, the patient will not be a candidate for fibrothorax and should have normal pulmonary function studies at a later date. There are no tubes draining from the chest, the patient does not run a persistent febrile course, does not require long-term antibiotics to handle the infected sac and most importantly can be returned to a productive life at an early date.

It is my feeling that this procedure is simply and safely performed and affords service to those patients who have escaped antibiotic treatment and progressed to frank empyema without clearing by x-ray.

The accompanying x-rays reveal several patients in the pediatric and adult age groups who have benefited by the procedure of decortication.

SUMMARY

1—Decortication as a surgical procedure is described and its importance in the advanced empyema patient advocated. 2—Emphasis is placed on early surgical treatment with decortication when medical management, that is, antibiotics, intercostal catheter drainage, intrathoracic enzymes have failed. Either the infected sac remains or the lung is partially trapped in the collapsed position. Both of these are solid indications for proceeding to a decortication. 3—Representative x-rays of both the adult and pediatric age group are given to emphasize the early clearing which can be obtained by decortication.

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Lynchburg, Virginia

Otitis Externa Caused by B. Coli, Pseudomonas and Fungi

A Case Report of 1687 Patients

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The difficulty of obtaining a lasting cure in patients with otitis externa is well known. The author reports that the topical application of sulphurous acid produces excellent results.

THE FIRST PRELIMINARY REPORT of a few little things that I had attempted to do toward a more successful management of this disease was presented in 1948. The number of patients was small, little over one hundred. The results were quite gratifying.

This, the second narrative report on this disease, is simply an enlargement and an extension of the first report. The number of patients has increased to 1881. This same disease of the ear has been found elsewhere on the body. This report has included my experience in toto with this disease for nearly forty years. Both the number of patients and the years have been divided into three periods.

Period number one extended from 1921 to 1937, or 16 years. One hundred and ninety-four patients with this disease were seen and treated. Virtually no cultures were taken. My experiences throughout this period ran something like this. While most any drug would cure a fair number of the milder cases, the rule of the day, the week, the month and the year was this: In the moderate and the more severe ones, their return was at least every two, three to six months with a flareup of the same disease. At best in these severe ones, I would have at least one fairly long siege of treatments, certainly during each summer season. This was true after having utilized all of the known drugs in the textbooks and periodicals as of that date. It was also true whether I treated them, or by referral they were treated by nationally known otologists. The results were very, very discouraging.

Toward the end of period number one, three things happened which precipitated a little thinking, a little planning, and a little effort on my part: first, the accumulated failures heaped themselves upon my feeble, complacent and otomycotic professional brain; second, my reasoning was that if practically all of this disease is caused by fungi, all in the world we need is a better fungicidal therapeutic agent; and third, after much search, I found three established scientific facts which prompted and justified me in the use a little later of a derivative of what to me has proved the best fungicidal and germicidal agent yet known to mankind. Thus ended period number one.

Period number two extended from 1937 to 1951, during which time 371 patients were seen and treated. For the first five years of period number two, cultures were taken and run for fungi only. Throughout these five years all cultures were reported positive for fungi. When period number two was exactly thirty days old, the new therapeutic agent was tried. It was a case of simple aspergillus infection, which had resisted nineteen previous treatments with other drugs. With two applications of the new therapeutic agent, the patient became well and has remained well since that time, which has been 21 years. I have used this same therapeutic agent, but in a stronger solution, from that day until this day. While it has not been as dramatic in all patients as in the first one, it has been by far the most effective therapeutic agent I have ever utilized in this disease.

In 1942 I began to obtain a few culture reports that were negative for fungi. But those diseased ears with negative fungi responded equally as well to the new therapeutic agent—sulphurous acid solution. From these facts found, it was our speculation,

hope and line of reason that we might possibly be able to find the one or more missing links in the chain of bacteria that had entered into the production of this disease. We concentrated our efforts on those negative fungi cultures. We cultured and subcultured them for all organisms that would grow to the point of identification of each for about two years. The end results of our findings amounted to this: Of all the organisms grown, each and every one varied as to their presence or absence except

Fig. 1

two. Both were gram negative bacilli. One or the other, or both, were always present. One was pseudomonas concerning which no one has questioned. The other was found more often. It was a simple innocent non-pathogenic B. coli. At that time I accepted and respected the pseudomonas because of its presence and pathogenic qualifications. The B. coli's persistent presence was accepted and later suspected with grave suspicion and concern.

In the spring of 1948, while in the middle of the dilemma period of suspicion relative to B. coli, my first preliminary report on this disease involving 112 patients was presented. Its title was "Otomycosis". Now, in retrospect, its title should have been the one utilized today, for out of the 112 patients, 18 were negative for fungi. These 18 showed B. coli in 12, and six pseudomonas. These B. coli findings were simply reported with but little significance attached to them.

By 1951 the 112 patients had increased to 371 for the second period. The number of patients suddenly began to increase. The bacteriological findings began

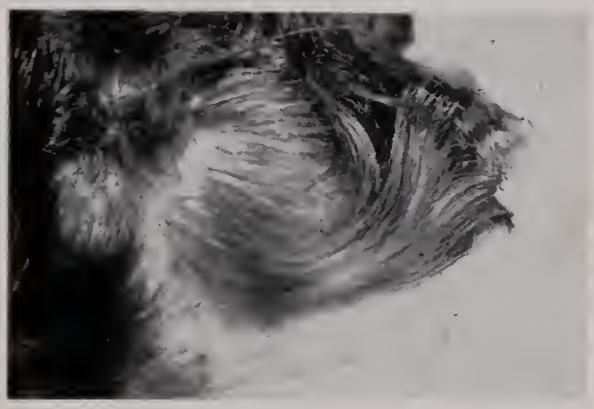

Fig. 2

Fig. 3

Fig. 1. B. coli chronic eczematoid dermatitis of the ear canal extending and involving the entire skin of the external ear, post auricular area and scalp of long duration.

Figs. 2 and 3. B. coli chronic eczematoid dermatitis, the same patient involving eye lids and scalp only.

to trend toward a pattern. Fungi was rapidly demoted to that of the most minor role in the production of this disease. Pseudomonas was elevated to the second minor role. B. coli's presence or its equivalent, which we were unable to either grow or identify rapidly, assumed the number one major role in causing this disease. Well before period number two ended in 1951, I began the cultures of ears to be run for the above three organisms only for two rea-

sons: First, one or two, and in a few cases all three, had been found in each and every culture; and second, all three had been found to be quite sensitive to sulphurous acid.

The third and last period has included the past eight years. The 371 patients from period number two have now increased to 1687. The 194 patients in period number one have been excluded because so little was done and accomplished.

Throughout period number three no additional bacteriological work has been attempted; however, the B. or E. pathogenic or innocent coli has been studied more in detail. The B. coli-pseudomonas-fungi pattern as was developing in late period number two has now been confirmed. During the past eight years, in well over 1300 of the last patients of this series, I have taken the rather bold position, whether I am right or wrong, that B. coli has been present and that B. or E. coli or its equivalent, whatever it may be, has or have been responsible for 62% of patients with this disease; that pseudomonas has been responsible in causing 30%, and that fungi only 8% of patients with this disease. As to these findings I don't think anyone has or will question the percentage of pseudomonas or fungi. Concerning B. coli, innocent or pathogenic or its equivalent, there has or will be a big question mark. In its behalf I wish to submit a few points of interest.

The first evidence is that more has been written in the literature about B. or E. coli in its association in infections elsewhere in or on the body within the last ten years than any previous corresponding time. As the second source of evidence, this reporter has seen with his own eyes very similar or identical skin lesions elsewhere on the body, which had the same symptoms, ran the same clinical course, from which were cultured not only the same three organisms but in the same ratio. And further, these elsewhere lesions responded equally as well to the same therapeutic agent. The third source of evidence is that of all the different strains of organisms, both pathogenic and non-pathogenic, that have been able to live and thrive in the human body, numerically at least, B. coli should stand away out in front. Why not? It has 32 feet of moist intestines in which to live and in addition around the anal region, the genitalia, arm pits, scalp and even ears. Therefore, all we have to do is scratch one of several places then scratch the ear and we could have a B. coli infected ear. The fourth source of evidence has been the sense of smell. The majority of us, at least in our interne days, must have opened at least one or more perirectal abscess. Can you or I forget that odor? Fairly recently I have had several patients who came in because of odoriferous ears. Examination of these ears, thus far, has turned out to be one or both of two diagnoses: either otitis externa or an old intermittent otorrhea or both. Cultures from these ears, to this date, have shown at least one of the three organisms in this report and nearly in the same ratio. After each was treated with sulphurous acid, the odor soon disappeared. The amusing thing was that in the patients with positive B. coli, after the odor from their ears had disappeared, usually at their second or third treatment, those patients would say, "But, Doctor, now I smell my feet and they smell just like my ear did. I have athlete's foot." Through curiosity I would culture their typical appearing athlete's foot and instead of finding fungi, B. coli was found in almost pure culture. The fifth source of evidence is that the predominance of B. coli findings has not been limited to patients in the immediate locality where this little work has been done. The same ratio has been maintained in patients from as far north as New York City, all the southeastern states, as far south as New Orleans, and eight patients from the tropics.

In lieu of this and other available evidence, this reporter has become more suspicious, curious and anxious to actually know whether or not we have been kidding ourselves relative to B. or E. coli's pathogenic potentials. Is this the one that is pathogenic? This concludes the bacteriological phase of this report.

On the second or pathologic phase of this disease, this writer has done very, very little. He has only attempted a definite routine, minute, detailed study of the gross macroscopic pathology or findings. For the macroscopic pathology and alterations in the physiological functions of the adjacent glands in the external ear, I have accepted such authorities as the late Dr. W. D. Gill, and now his brother, Dr. E. K. Gill of San Antonio, Texas, and of Dr. B. H. Santuria of St. Louis. Based upon the unalterable facts that diseased ear canals with moisture have always required more treatments than the dry ones, and that the moist ones have been more liable to recurrences, these things might be explained by the hyperactivity of the adjacent glands.

As for the third therapeutic phase of this disease, there has been tabulated exactly what happened as it happened. Throughout 1936, in a desperate effort to find a better therapeutic agent to better combat fungi and their associated organisms in this disease,

I came across three established scientific and practical facts of evidence which prompted and justified its experimental use at least. The therapeutic agent was SO_2 liquid or gas. The evidence was: first, its absolute proven effectiveness in the prevention and destruction of fungi activity in the vegetable world, as the spraying of grapes and the top layer of new silage; second, for hundreds of years it had been utilized very effectively in the fumigation of rooms and houses in which there had been numerous contagious and communicable diseases. My interpretation of this was that SO_2 gas produced, liberated and distributed through the simple burning of a sulphur candle or its equivalent, has at least outside of the human body destroyed more different kinds and strains of viruses, and germs or organisms than any other known chemical. The third evidence revealed to me was that SO_2 liquid has been equally as efficacious in the destruction of fungi and their associated organisms on the human body. This evidence had its beginning through an accident in the Virginia Smelting Company, Portsmouth, Virginia. It happened in this manner: At the plant, while pumping SO_2 liquid under pressure through a hose into storage tanks, the hose burst and accidently sprayed the feet of several barefooted employees. These employees just happened to have had athlete's foot. The late Dr. R. L. Corbell, Sr., the Company physician, was called to treat them. His job was that of observation and the prevention of secondary infection. The end result was that instead of any secondary infection, their primary infection, athlete's foot, had been cured, and they remained cured. It was upon this evidence that Dr. Corbell cured over 400 patients with this disease of the feet, and 169 patients with fungi infections elsewhere on the body, some of which were quite dramatic. At a consultation with the chemical engineer and a druggist, I propounded these three sources of evidence, but they swayed me away from the use of the pure SO_2 gas or liquid. We compromised on a derivative of it, sulphurous acid 3.4% at first. Its use on the first patient has already been given. To date I have sprayed twelve patients with this disease or elsewhere with dramatic results. I plan to try it more in the near future.

A brief breakdown of the 1687 patients showed the following: The number of primary acute was 368. The number in which the disease was chronic, including those who came in with varying degrees of an acute exacerbation, was 1319. The disease was slightly greater in females. As to age, it was from six months to 94 years.

Our results in the smaller group of 368 primary acute ones have been 100%. However, in the larger group of chronics, consisting of 1319, our results have not been that good. There have been nearly 200 of this group that we have never been able to contact. But in 1109 we have had definite evidence by word of mouth, telephone, or correspondence that they have remained well. The worst failure group encountered was that of seven females from fairly young to middle age who were walking mental, physical and dermatological failures otherwise. Our only consolation was that neither could their internist, psychiatrist nor dermatologist cure them. We would get them well, or supposedly so, but they would return within six months. There was another group of six who were quite sensitive to the chemical. Another group of 18 were slightly sensitive but they got by with several treatments less intense. There was another group of 81 patients who would get completely well, apparently, but they would return within 12 to 18 months. The last of the failure groups included 38 patients who were super-sensitive to the sensation of burning, or that was my interpretation of it. At this point I would like to state emphatically and frankly that sulphurous acid does burn. It burns a few considerably and smells equally as bad, but if you explain to the patient just what you are going to do and how important it is, and if by doing so they will get well, then I have found but little trouble with them enduring it. It is available in ampules under the trade name of S-D-O from Angier Chemical Company, Boston, Massachusetts, through your wholesale pharmaceutical house and druggist. Propionic acid has been added to it, which we think detracts from the efficacy of sulphurous acid.

The first treatment consists of two parts: part one, a completely emptied and dry ear canal; in part two, the first treatment is completed by briskly swabbing every nook and corner of the canal with two saturated cotton tipped swabs. Upon their return on the third or fourth day if they are not radically improved, a third step or a more intensive treatment in addition to parts one and two is given. This is executed in one of two ways: by either turning the patient's head to the opposite side, filling the ear canal with sulphurous acid of 6% solution and allowing it to remain for at least five minutes, or, for the same length of time, the insertion of a saturated cotton tampon. The number of treatments have been from two to twelve. This regime has stopped those patients

going from general practitioner to general practitioner, from otologist to otologist, and from dermatologist to dermatologist.

COMMENTS

Regardless of your reaction to the work entailed in and the body content of this report, let it not be said first, that its author has been B. coli crazy. He has reported only his findings. Second, that he has in any sense attempted to elevate himself beyond the portly state of an average otologist. He is content there. Third, that he thinks that he has completely solved this otologic problem. For so long as the number of treatments vary from two to twelve in almost identical cases, this alone exemplifies our imperfections.

SUMMARY

The few little simple things in this report which have been attempted toward a more successful management of this disease in its bacteriological, macroscopic, pathological and therapeutic phases have been conceived, studied, evaluated and put together step by step, patient by patient, and group by group. All of this thus far, when added up, has seemed sane, logical, scientific and practical.

Professional Building
Portsmouth, Virginia

Sunlight on the Skin

Adverse effects of sunlight on the skin are outlined in the September Southern Medical Journal in a paper by Capt. Jere D. Guin, USAF, Sheppard Air Force Base, and Dr. John M. Knox, Houston, Texas.

While the contents of the paper represent the views of the authors and are not a statement of official Air Force policy, the doctors have amassed impressive evidence from case histories of patients at the USAF Hospital Sheppard, the Department of Dermatology, Baylor University College of Medicine, private practice and published scientific material.

Dermatologists in Texas, they state, have become acutely aware of the harmful effects which sun may have on the skin because of the high incidence of skin cancer there, as well as other diseases precipitated by sunlight. And because the practicing physician is often questioned by patients about sun-bathing, the Texas doctors hoped to clarify not only responses of the normal skin to sunlight but to analyze protective measures.

One of the undesirable consequences of prolonged exposure to sunlight is the premature aging of the skin. By comparing the skin above and below the collar line, a person can note a dramatic difference in the two, which should give pause to women who regard a "beautiful sun tan" as essential.

Naturally, the most serious result of over-exposure to sun is skin cancer, found especially in blue-eyed blonds or redheads who have been chronically exposed to sunlight—as well as farmers, sailors, policemen and other outdoor workers. Cancer of the lip is rare in women who wear lipstick and dark-skinned Negroes are protected by the comparative thickness of their skins and pigment contained.

Several protective measures to be taken against over-exposure to sun are described. The doctors list natural skin protection as its thickness, amount of pigment and surface sweat. In the case of persons with allergic reactions to sun, they caution against the indiscriminate use of various preparations taken orally because of the danger that they will induce something called "sunburn reaction."

All in all, it would seem that even persons with normal skins should forego unusual exposure to the sun, unless of necessity, and take wise precautions to lessen ill effects.

Your Local Health Department

F. A. CLARK, Jr., M.D.
Richmond, Virginia

The city's Department of Public Health plays a vital role. It and the local medical profession are mutually dependent in providing for the health needs of the public.

HEALTH OFFICERS universally look upon an invitation to speak formally at their local medical academy as a great honor. I can assure you that I am no exception to this and I am indeed grateful and humble for the opportunity.

I hasten to emphasize, however, that I am not speaking as an individual but only as a representative of your local health department. And I would like to emphasize the "your," since the health department does not belong to me or to anyone else who happens to be employed by the City at any given time to carry out the responsibilities that have been given to it. It is the community's health department, and it is obviously desirable that all of its activities and programs have the sanction and acceptance of the community as a whole. Of course the phrase, "the community as a whole," is a cliche and implies a note of unanimity impossible to grasp or to anticipate. Even two individuals seldom have agreement on more than a few matters, and 240,000 or 400,000 can scarcely be expected to see eye to eye even on one point. However, we would particularly like to believe, and in fact feel it to be essential, that the matters with which we are involved and the policies and procedures we follow have the general approval of those in the community most closely related to individual health and disease, namely, the private physician and dentist. I, as a physician, can assure you that my own enthusiasm for the frequently aggravating but stimulating challenges of public health would be considerably altered, and undoubtedly would never have developed, were I to consider such activities as running counter to the overall objectives of organized medicine. In any event, there appears to be considerable need to discuss the setting from which health department services are provided.

Not inconsiderable confusion has existed in recent years as to what public health is and does, or perhaps more accurately, what public health should be and should do. It has become almost a game to try to define it. This uncertainty is not the unique property of those in the specialty or practice of public health; actually, the question is not limited to those in the health and medical care professions. Many things contribute to making this matter one of more than passing or academic interest at the present. Among these are the various sociologic and psychologic changes that have occurred in our population in the recent past, the changes in the nature of the leading medical problems and challenges, and not least, the thought-provoking changes occurring in the practice of medicine including the development of the so-called "third party" consideration.

Some people think of the health department as strictly a law and regulation enforcement agency, others think of it solely as a nursing service, others as a Better Business Bureau or a Public Relations Office, others as an office for gathering community morbidity and mortality statistics. Still others think of the health department as being involved only with investigating communicable diseases or with finding cases of tuberculosis or venereal disease. Others consider it only as a laboratory, as a health education media, or as maternity and well-child clinics, or as the many and various environmental health services. Still others believe that the health department is concerned solely with indigent medical care assistance programs. It sounds trite indeed to say that all of these are right and wrong. Unfortunately, knowledge of this diversity of beliefs sometimes provides a convenient and an effective tool for those who happen to be opposing a recommendation of the health department.

There are a few who believe strongly that a health department operates as a political device, serves no worthwhile purpose whatsoever, represents wasted tax money, and stands merely as another example

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CLARK, F. A., JR., M.D., M.P.H., *Director, Richmond City Health Department.*

of government (even local government) operating in a field where it has no business. Still others begin and end with the ultimate of damnation, "socialized medicine", and therefore feel that health departments should be fought at all costs.

There are a few who feel that health departments are staffed by people who have a philosophical dislike for the private free-enterprise system, or who have an individual dislike for the personal side of health and medical care, or who for a variety of reasons cannot function in the "too rough and tumble" private world. While admitting that exceptions exist to all generalizations, I believe that most professional personnel who "go into career public health" are the same individuals who frequently branch into an academic or research role; in other words, they are intrigued by the "why" and the "how" of things as well as the "what".

There are those who feel that health departments should not be concerned beyond the several aspects of communicable disease control. On the other hand, others feel that a non-communicable disease assumes public health importance if it is widely prevalent among a population, if it is a frequent cause of death or disability, and particularly if prevention and control measures reasonably can be applied with some expectation of success. There are many who believe that health departments in general ought to be doing many things that they are not. While each individual must think the situation through for himself, it is obviously desirable that this be done with a clear consideration of semantics and with a concept of the history of public health. For instance, not many realize that even in the 1700 and 1800's organized community activity in the health and disease field was not restricted to communicable disease control, although it is certainly true that this represented the major community health concern of the earlier days. It is unfortunate that, in general, physicians cannot be excluded from among those who usually have little idea of what a health department does or even what it attempts to do. Too many medical school exposures to "public health" have been limited to the Imhoff tank, syphilis, and the "needy".

Health departments have always held to the practical ideal that prevention of avoidable illness and conditions is a sensible, possible but difficult approach. However, it is accepted that health departments have no monopoly, and indeed seek none, in the field of preventive medicine because of the many facets of modern prevention that necessitate individual patient-physician relationships. Actually, health departments have no monopoly on public health. All personnel working in health and health-related fields, irrespective of whether the setting in which they are functioning is a private, voluntary or a governmental one, obviously contribute in varying degrees and ways to the multifaceted concept known as public health. Futher, one can scarcely overlook the role played by school teachers, policemen, firemen, welfare departments, engineers, agriculturists, religious groups, social and fraternal organizations, home economists, recreationists and countless others. The term "public health" is frequently used in a descriptive sense to indicate the health and disease status of individuals as a group. This descriptive view implies the end result of the "sum total of all factors in the environment that tend to affect man's longevity and his ability to live at the optimum level of health possible."

Public health practice has been defined as a specialty concerned with those activities in the total health field which are considered to be primarily a community rather than an individual responsibility, which are performed primarily for the community's benefit, or which cannot be performed or provided efficiently or at all by the individual and/or his individual physician. This definition, of course, implies that there are many activities in the total health field which are beyond the interest or the scope or the time of the individual or the individual's physician, and that these constitute the areas in which community health programs supplement and complement the basic fee-for-service, free-choice-of-physician patient-physician relationship without substituting for or replacing it. A health problem can be considered to be a community responsibility when, because of its nature or its extent, it can be studied or solved efficiently only by organized effort. In other words, organized activity in health is necessary or desirable only when a given problem cannot be solved efficiently by the uncoordinated and unassisted efforts of individuals.

An acceptance of these views, then, permits a visualization of the activities of health departments in what would seem to be the proper public health perspective—namely, merely as the setting for a portion of the work in a community relating to health and disease.

True, there are certain legal obligations on health departments, and certain of its responsibilities are dependent upon the authority available only to government agencies. However, there is no question but

that it is far more desirable for the official agency to help identify health problems and to stimulate satisfactory and acceptable methods of meeting community health needs, or to serve a catalyst role, than it is for the department to move in and provide or force services. Indeed, flexibility, evaluation, and sound judgment from the community are needed.

Health department activities are far from static. They vary with time and place, depending on changing needs, resources, attitudes, and desires of the community. Health department activities *can be* precisely what the people of an area want them to be since the department itself passes no laws and appropriates no funds. As has been so often stated, there is no bottom to the "need barrel", and, therefore, what the community chooses to do in assisting or stimulating individual action (whether through private, voluntary group, or local government efforts) must represent the so-called "community conscience" level. Further, community activity in health should be considered as an optimistic attempt to ultimately minimize individual or family dependency rather than to increase or perpetuate the dependency status.

In consideration of the role of organized action in health (be it voluntary group or health department action) one cannot, and in fact must not, lose sight of the basic unit in the health field: namely, the relationship between a patient and his individual physician. In days when scientific knowledge was scanty and community organization minimal, this relationship yielded about all of the benefits received by the patient. Even today all of the complex arrangements that exist to assist in medical care and protection of health merely supplement and complement this relationship and certainly are not intended to replace it. One can state that the private physician's responsibility lies primarily with his individual patient, while the health department has the community as its patient-entity. This sounds easy, but when, for example, is a patient's individual situation of interest to his neighbors in the community? To what degree can a healthy individual be considered an important community (and national) asset? At what point does a community health problem concern the desirable free choice of medical benefits and the individual patient-physician relationship? Obviously, there are no hard and fast answers to these or to many other questions that can be raised.

I like to quote from Dr. McGavran, Dean of the School of Public Health, University of North Carolina, who states "Public health practice is not the practice of medicine, public or private, preventive or curative, socialized, insurancized, or individualized." Health departments are concerned with the mass phenomena of disease, be it tuberculosis, heart disease, polio, cancer or dental caries. They are concerned about general organization and efficient utilization of services and facilities relating to health, about the community having enough doctors, dentists, nurses, hospital beds, nursing homes, bedside nursing care and various ancillary services and resources. They are concerned about community health status, about the effectiveness and cost of different methods of providing health protection and medical care, and about the use of epidemiology and statistics in arriving at a scientific diagnosis of needs and solutions. Health departments will be the first to tell you that they have a long, long way to go in finding out how to take a history, do a physical, arrive at a diagnosis, and make recommendations for its "patient". Health department personnel may be called upon to do many things—sometimes for a variety of reasons—but this does not necessarily make all of these activities "public health". Conversely, as previously stated, "public health" is not limited to the health department, although its trained personnel have an interest in the total picture.

In spite of my indications, to believe that the health department deals entirely with abstract concepts and ideas rather than with people is not altogether sound.

The Richmond City Board of Health dates back to 1871, but the Health Department was not officially established as a Department of the City until 1906, the same year that the State Health Department was established. Prior to 1906, some of the activities recognized as Health Department functions were carried on by inspectors and part-time physicians. As early as 1870, deaths were recorded by "sanitary police officers" who made annual house-to-house canvasses. They also assumed responsibility for certain environmental requirements, the sanitary disposal of wastes and safeguarding of the milk supply. Certain medical services were provided by part-time "City physicians". As is true with almost everything else, many changes gradually took place during the ensuing years. Changes in administration, services, procedures, personnel, and costs were inevitable. Today, the Department employs about 150 personnel, is located in eight buildings at various points in the City, and has a budget of over a million dollars. This budget amount may be somewhat misleading, however, since about half goes for contrac-

tual payments for various medical care services for the needy. At the present time, about 15% of the total budget comes from various State and Federal sources, another 3% in fees for certain services, and the remainder from local taxes. About 2.8% of the annual City operating budget, or approximately $4.80 per capita, goes for Health Department services. In view of the extent of the total for medical care purposes, this per capita figure for health is neither unusually high nor unusually low for cities of Richmond's population class. City by city expenditures are difficult to compare because of the differing budgeting practices and organizational assignments.

As is customary with groups of this size containing personnel with many backgrounds and functions, the Department is divided for administrative purposes into various sections or committees or units. Unfortunately, in government these units or committees are called bureaus and divisions, but the analogy is favorable.

We are impressed with the freedom with which many use the terms "Health Department" and "Board of Health" interchangeably. As most of you know, the Board is composed of five citizens appointed by City Council to serve in an advisory capacity to the Department. The Board, which has limited powers to adopt certain rules and regulations, must always include at least two practicing physicians.

As can be seen from a review of annual reports, the Department is engaged in a great variety of activities, some of which involve the physician directly. Vital Statistics has been considered as the most basic of all areas of public health. The Department serves as the local registrar for births, deaths, and for the collection of certain morbidity statistics. (From the listing of mortality and morbidity has come the discipline of biostatistics, which is closely related to epidemiology, the study of the occurrence of illness in a population.) Analysis of death and illness patterns is important not only on a short-term base but is necessary in evaluating trends and in initiating or stimulating appropriate study projects on longer-range and broader terms. The physician as the source of data as well as eventually an important recipient is in a key position to influence the reliability of information about the community's health.

The Communicable Disease Control section, in addition to analyzing community status, can offer certain consultative and diagnostic laboratory services to physicians upon request, can assist in or conduct investigations of disease outbreaks or individual cases of unusual communicable disease, and serves as the local distributing agent to physicians for various biologicals made available by the State Health Department. An immunization clinic and diagnostic and treatment clinics for tuberculosis and venereal disease are operated for those who are unable to follow through with the full services of a private physician. A photofluorographic chest x-ray screening service is operated in conjunction with the Richmond Tuberculosis Association. Confidential interviewing and contact tracing services can be offered in VD. Assistance to the physician can be provided in eliciting and locating contacts of cases of TB and other communicable diseases, in securing necessary screening examinations for contacts, and in effective supervision of cases.

The Maternal and Child Health section operates several clinics weekly for the purpose of providing examination and instruction to selected individuals. Encouragement is given concerning the necessity for medical supervision of the pregnant mother and young child, basic instruction is given in feeding, immunization and in the physical and emotional problems associated with the pregnancy and infant period. Those discovered by this screening process to have defects or conditions requiring definitive care are referred to appropriate sources. Assistance to various handicapped and crippled children of indigent and semi-indigent families is provided through special clinics of the State Health Department and through the Maternal and Child Health section of the local Health Department. Interest is given in community problems in Maternal and Child Health and in such related aspects as home safety and mental hygiene.

In every locality there are families who are unable to bear the expense of private medical care. Some of these families are recipients of public welfare assistance and some are low income families able to provide for the everyday needs of food, clothing, shelter and sometimes for minor short-term medical care. When long-term illness or other catastrophic situations arise, most families can be overwhelmed by the expense. Ideally, all families should have the protection offered by prepaid health and medical insurance, at least of the catastrophic coverage type. Unfortunately, the more borderline the income, and, therefore, the more insurance protection needed by the family, the less the likelihood of their having it. In Richmond, as in most localities, tax funds are used to provide medical assistance to welfare clients and to selected medically indigent residents when

funds permit. Throughout the country, one finds many ways of doing this. There is always a desire to stretch the available public funds as far as possible while maintaining a reasonable standard of care. Unfortunately, this sometimes tends to minimize the role of the private physician's office in the care for large numbers of such families. Such a situation exists in Richmond where organized programs attempt to provide and co-ordinate care for these families in accordance with needs at the lowest possible cost in tax dollars. The City Service Clinic operated nightly at M.C.V. and the Home Care Program are further examples of programs existing to which the private physician can refer patients who do not have the funds to obtain necessary care on a private basis.

As most of you know, the Instructive Visiting Nurse Association (a red feather agency) and the Department's Nursing Division are administratively combined into a single community nursing service. Home nursing services are available to provide much assistance to the physician and the family on a nominal fee-for-service basis. Administration of injections, bed baths, dressing changes, medical status information, education concerning techniques, and the countless other services within the sphere of the nursing profession can be provided upon individual request of the physician. The private physician deals directly with the nurse giving the service to his patient, saving much time for himself and much expense for the individual who may otherwise need to be hospitalized to secure the needed care. These nurses are competent and interested in serving you and your patients, and it must be continuously reemphasized that their services are not limited to the indigent and the semi-indigent.

Time does not permit a continuation of the list of services provided by the Department which can assist the private physician in his practice, nor even an elaboration of the purposes or the procedures of those mentioned. There are only examples of areas in which we believe it essential to know your views concerning philosophy, necessities, and procedures.

In these busy times, it is frequently too easy for everyone to go about their separate and pre-established ways without benefit of any real cooperative planning toward significant and broad issues. I doubt seriously that individuals in private medicine are content to let someone else or some other group set the plans and concepts relating to community health matters, and I can assure you that those in public health are not happy with this prospect either. In other words, I believe that private physicians and dentists have a challenge and an opportunity to share in decisions which have to do with local health department problems and activities. Your views on specific matters are vitally important and I am certain that you will find personnel of the Health Department or the Board of Health willing and ready to discuss matters on which you have questions.

To meet some of the challenges that lie ahead, long-range thought needs to be given not only to those things that require intimate patient-physician relationships but also to those matters affecting total health and medical care that cannot be provided efficiently without organized community effort. The latter may actually include considerations dealing with disparities and discrepancies in patient-physician coverage at any given time, and therefore with approaches and techniques which act to conserve the time of the private physician for those spheres more appropriately requiring the intimate and personal relationship.

I have attempted in a few minutes to give a bird's-eye view of some local health department philosophy and some programs of particular concern to the practicing physician. I hope that I have been at least partially successful in making you feel that this is your department and that your assistance is needed and can be of value in many ways. Comments such as "we don't know what you're doing, but we think you're doing a good job" are not sufficient to meet immediate problems or the long-range objectives.

Department of Public Health
Richmond, Virginia

Ramsay the Poet Immortalizes a Virginia Physician

GORDON W. JONES, M.D.
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Here one gets a glimpse of a physician and surroundings in the early days of Virginia.

EIGHTEENTH CENTURY Middlesex County, Virginia, was as prosperous as any, peaceful, safe. Two centuries before the frantic bridge-building activities of our Highway Department it was a land delightfully isolated by watercourses worthy of a Housman's attention. To paraphrase him,

The Rappahannock and the Piankatank and Dragon Run
Are the laziest rivers under the Sun.

Their very laziness invited human bustle. At the beginning of the second Virginia century the Rappahannock estuary called Urbanna Creek sported a seaport with ocean and river trade. The town of Urbanna and its surrounding Middlsex County also boasted two or three interesting doctors. One, Dr. John Mitchell, became world-known for his medical, scientific, geographical, and historical work. About another, Dr. Mark Bannerman, the most widespread possible investigation reveals tantalizingly little.

The writer first became acquainted with him in the Leamington Bookshop of Washington, D.C., where Mr. Hamer showed him a quite rare little book entitled *The Tea Table Miscellany* by Allan Ramsay. The author writes a preface to this, his "fifth edition in four years", in which he delights to report the widespread acceptance of his work. He goes on to say, "My worthy Friend Dr. Bannerman tells me from America,

Nor only do your Lays o'er Britain flow,
Round all the Globe your happy Sonnets go;
Here thy soft Verse, made to a Scottish Air,
Are often sung by our Virginian Fair.
Camilla's warbling Notes are heard no more,
But yield to *Last Time I came o'er the Moor*;
Hydaspes and *Rinaldo* both give way
To *Mary Scot, Tweed-side,* and *Mary Gray.*"[1]

Here we have a small-paned view of life and gayety and youth half a century before the Revolution. Here we glimpse as a doctor, noted only slightly and mechanically in the official records, comes to life as he pens a "sonnet" after an enjoyable evening of song and doubtless literary talk in Middlesex and sends it overseas to the predecessor of Bobbie Burns.

This little poem tells us he was no dour Scot. It also reveals the names of the songs popular in Virginia two and a half centuries ago. These Scots "Sangs" run on for many stanzas. A few lines of *The last Time I came o'er the Moor* should suffice to illustrate.

The last Time I came o'er the Moor,
  I left my Love behind me;
Ye Pow'rs! what Pain do I endure,
  When soft Ideas mind me?
Soon as the ruddy Morn display'd
  The beaming Day ensuing,
I met, betimes, my lovely Maid,
  In fit Retreats for Wooing.
Beneath the cooling Shade we lay,
  Gazing and chastly sporting;
We kiss'd and promis'd Time away,
  Till Night spread her black Curtain.
I pitied all beneath the Skies,
  Ev'n Kings when she was nigh me;
In Raptures I beheld her Eyes,
  Which could but ill deny me.[2]

Interestingly enough, another contemporary Scotch work gives the music score of this little air. It was obviously planned for the tinkle of the harpsichord. I am quite sure only a maiden fair or a counter-tenor could sing it with ease.[3] All the airs seem thus high-pitched.

All this demonstrates sufficiently that Dr. Bannerman enjoyed poetry and song and literature. He had a yen, possibly emphasized by homesickness, for the popularized Scotch ballads which Ramsay was making intelligible to a large audience.[4] But who was he? Whence did he come?

A hopeful letter to Scotland inquiring about him brought no information. We do know that he was not a graduate of the Medical School of Edinburgh.[5] It is possible that he may have merely attended there

for a few months, or at Aberdeen, or St. Andrews, or Glasgow. It is equally possible that he merely bought a degree from one of those four Scotch medical schools. Such was a relatively painless way by which many Eighteenth Century doctors learned medicine: all they needed was the money and a few doctor friends willing to perjure themselves.[6] Yet again, he may have served an honest apprenticeship. However, we need not feel too badly about our ignorance. Famous as is Dr. John Mitchell, no one has apparently been able as yet to discover the source of his medical degree.[7]

At any rate, it is difficult to escape the conclusion that he was a Scot. His name is very Scotch. To my knowledge there were no other Bannermans in Virginia at that early date. That eliminates antecedents of the name. He liked Scotch songs. He corresponded with arch-Scot Ramsay (our balladeer was a member of the Jacobite Easy Club of Edinburgh and almost got in trouble after the uprising of 1714).[8] Because of these considerations, it does not seem too far afield to put a strong construction on Ramsay's words, "my worthy Friend", and claim that they were at least acquainted.

It is regrettable that there were no immigrant lists at that time. Thus, there is no record of Bannerman's time of arrival in America, though, as noted above, the supposition is strong that he was not a native. Since he first breaks into official notice in 1722 and is fairly frequently mentioned in the Middlesex County Orders thereafter, we can at least presume that he migrated to Virginia between 1720 and 1722 when friend Ramsay was in his middle thirties. There is no indication that he landed in any other part of Virginia first. He may well have disembarked at Urbanna, the seaport.

What did he bring with him? Considering the limits of boat space, he brought the minimum, of course, besides clothes, instruments and drugs. However, a large part of his allotted space must have been devoted to books. He liked them.

Judging from the inventories of the estates of men dying in Middlesex County in the decades before and after Bannerman's own, we can say that our doctor had the second largest library in the county.[9] His own library totalled 53 "English and Latin" books, valued at £5:9:0.[10] His only cultural superior in this regard was one John Hay who died in 1709 leaving more than 77 books, valued at £7:12:6.[11]

Since printing did not begin in Virginia until 1730, all books had to be imported. They were imported from England, not New England,[12] where gloomy or grim religious tracts poured from the presses. Bannerman must have realized this before he left Scotland. The only source of supply in Virginia other than direct import would have been purchases at estate settlements from heirs who were rather likely to retain books for their own use. The only retail book outlets in colonial America were in association with printing establishments.

Books, then, were an expensive commodity in Virginia. His library, small as it may seem to us, may have been worth seven or eight hundred dollars in the purchasing power of today. Not many contemporaries in the entire colony had much larger libraries than he, always excepting William Byrd. It was a further mark of culture and education in those colonial days to have a respectable percentage of Latin works,[13] as did Bannerman. The influence of the humanities was strong then. The size and character of his library mark him as an educated man and make it unlikely that he bought his medical degree.

However many books he brought with him, Bannerman most certainly augmented his library with imports. Ramsay's *Tea Table Miscellany* did not respond to the immortality of type until 1724. Thus he must have ordered it from abroad (if perchance Ramsay did not send him a copy gratis). And, if he ordered one, he certainly ordered others. If we may speculate a bit, very likely he bought other books from Ramsay who was a professional bookseller as well as poet and publisher.

If we will now redirect our attention to Bannerman's little poem, we will see that he mentions "Camilla", "Hydaspes", and "Rinaldo". It seems that the first is the name of a female warrior in the *Aeneid*. Hydaspes was Milton's name for the river Jhelum of India in *Paradise Lost*. *Rinaldo* was a poem by Tasso of which there were English translations; the Italian poet was held in great esteem. By means of these allusions Bannerman, in accordance with the custom of the time, was exhibiting his own literacy by hinting that he was giving up the old for the new light in poetry.[14] It is likely that these books were in his library. Milton and Virgil were owned by others in Virginia. This study reveals for the first time that certainly Ramsay and probably Tasso were on Virginia shelves as well. That such items have not survived in the records or in substance is not surprising. They were fragile items and, unlike the Latin works and the Bibles, were eagerly read to pieces and discarded. Ramsay's best work, *The Gentle Shepherd*, likely owned by

such a loyal Scot and friend as Bannerman, was so ephemeral an item that it is very rare today. The only copy of the first edition which the writer has seen would not endure a reading unless repaired.

Colonial Virginians enjoyed other things besides books. They were very litigious. Perhaps the courts of law afforded a safety valve for emotions pent up by isolation as well as a source of modest excitement to otherwise quiet lives. Thanks to this spirit we can trace many an otherwise elusive person.

Bannerman first entered the legal lists of Middlesex on April 3, 1722, when he sued William Fleet, probably for payment for professional services, in the Middlesex Court. Action was deferred to the next court, in May continued to June, in June continued again, and so on and on and on till judgment day of February 5, 1723 (our style). Poor Bannerman, after a year of monthly appearances at court lost his case and had to pay costs.[15]

At the same court, however, showing he did not despair of justice, he sued Col. John Turpeley.[16] This suit was, as was apparently the custom, continued to the next court, when Colonel Turpeley snarled back with a countersuit.[17] The original suit was continued again. But justice was speedier this time. On April 3, 1723, Bannerman's suit was dismissed[18] and Turpeley's continued, and again continued.[19] Happily for Bannerman, Turpeley's suit was dismissed on July 2, 1723, and, marvel to behold, Turpeley had to pay costs.[20]

Our doctor was quiet for a while. Perhaps he was discouraged by having been rebuffed twice. Perhaps he tried more strenuous or personal means of collection. Perhaps he was just a peppery Scot. Or possibly someone thought his treatment was unnecessarily rough. At any rate, on March 2, 1725, one Hugh Roach sued Bannerman for assault and battery.[21] Following the old pattern the case was continued until July 6, 1725, when at a full-blown jury trial, Bannerman was acquitted and Roach had to pay costs.[22]

Proving that he had no desire to turn the other cheek, Bannerman on September 7, 1725, slyly struck back at Hugh Roach in an action of trespass of his "dear friend" Gilbert Hamilton against the said Roach. Bannerman entered himself as security for the payment of costs by the plaintiff.[23] This action was continued many times and apparently finally dropped, with no mention of Bannerman's having to pay up. Roach was exceptionally litigious, his name appearing time after time. He won, sometimes, in debt suits.

If he did not receive payment through the agency of the courts, at least the vestry of Christ Church Parish, Middlesex, was more kindly disposed. At least three times he or his estate was paid for attending the parish poor. In October, 1724, he was allowed 3000 pounds of tobacco for his attentions to Mary Cosley and Mary Robinson's "girl".[24] Two years later he was allowed a mere 300 pounds for services which were not described.[25] And still two years later, in October 1728, his estate was allowed 600 pounds of tobacco.[26] Apparently, this particular vestry only got around to paying for services rendered the poor every two years. This is further slight evidence that Bannerman arrived not too long before 1722.

At this time tobacco was worth in the neighborhood of two pence a pound, with variations depending on quality. The price was held down by glut plus all the expenses and risks of shipping, storage, taxes, and commissions.[27] Another way of clarifying values might be to note that his first payment would have amounted to about four hogsheads of tobacco.[28]

That not all his time was spent in working for tobacco scrip or litigating in the Middlesex court is proven by the fact that he married a Lancaster County girl. He must have had time to sail or paddle across the breadth of the Rappahannock from Urbanna to, likely, Merry Point frequently enough to woo Catherine Barker of St. Mary's Chapel Parish. They wed August 12, 1724. Since no parent or guardian is named in the record, both were necessarily of age. Only one witness was present: William Payne.[29]

It is pleasant to think that Mrs. Bannerman was one of the fair singers mentioned in the doctor's poem.

The Bannermans had one child, Margaret. Likely she died in childhood, for no further mention of her can be found in the usual records.

Bannerman lived but three years after his marriage. We know not of what he died. His will was admitted to record October 3, 1727. The will is so pleasantly worded that we get an impression of a fineness of feeling beyond the set of the legal phrases.

After the usual preamble and doubtless sincere protestations of Christian faith, he writes, having identified himself as a Middlesex County resident,

> ". . . I give to my dear wife all my personal estate as long as she lives, earnestly recommending to her and adjuring her by the love she bore me to bring my child in the fear of God and the Christian religion.
>
> I will and bequeath to my said dear wife all my land in Essex County which I bought of William

Winston to be occupied by her during the term of her natural life providing she remains a widow, but if she marries again which is probable she will and from which I no ways restrain her then I leave her only the dwelling house kitchen and all the other office houses upon the said land and two hundred acres of the land adjoining thereto to be had and occupied by her during life.

I give to my dear daughter Margaret all the land in Essex which I bought of William Winston deceased, commonly known by the name of Nehocknay to her and to her heirs forever excepting her mother before my death should bring a boy or at the time of my death should be with child of a son then I give the above mentioned land to the said son and his heirs forever my meaning being that the land shall go to the male heir of my body if there be any . . . .

It is my will that if my wife shall bring a male child after my decease that is of my body that he likeways shall have all the stock of cattle sheep and hoggs that shall be upon the said plantation of Nehockney at the time of my death.

It is my will that the heirs to my land whether a son or a daughter should not possess the same during the life of his or her mother providing she remains a widow but if she marry again then the heir shall be put in possession of the remainder of the land my wife does not occupy at the age of twenty-one . . . .

I give all my wooling cloths to be divided amongst my white servants as my wife shall think fitt.

I give to my very good friend Alex. Fraser a handsome gold mourning ring of a guinea price it being all the legacy my small estate will allow . . . .

I give to my dear friend Gilbert Hamilton if he comes in safe from Scotland my silver watch.

I give to William Gordon now my ward the carbine I bought of Mr. Christopher Robinson's estate.

I give all the rest after the payment of my just debts to my dear daughter Margaret but she is not to enjoy the same until after her mother's decease.

I constitute . . . my dear wife and my very good Friends Gilbert Hamilton and Alex Fraser as also William Gordon (now my ward) when he comes of age my whole and sole executors . . . this fourth day of July . . . 1727.

At a court held for Middlesex County the third day of October, 1727, Catherine Bannerman produced this will and it was admitted to record.[30]

Upon reflection it will be realized that this will tells us a good deal about Bannerman. There is kindness there; he was probably an amiable physician.

His warm references to Gilbert Hamilton remind us that this is the second time that their friendship was noted in the official records. Here we learn of Hamilton's trip to Scotland. It may well be that his friend carried the very sonnet that started this study with him to Scotland. Ramsay was well known to the Hamiltons of Scotland. A poem by William Hamilton is printed in the *Miscellany;* in a revised form a piece by Hamilton of Gilbertsfield was also used. The Ramsays and the Hamiltons were Lanarkshire people.[31] Incidentally, Gilbert Hamilton did return safely and died in the 1760's in Richmond County, of which he was sheriff for a time.[32]

Another point emphasized by the will is that he must have enjoyed a modicum of prosperity. Only a man of some local stature would have a ward. He had white servants; no Negroes are mentioned.

Of yet more interest in this regard is his reference to his lands in Essex County, the plantation named Nehockne (or a) y. He bought it from Winston. Land owned by Winston, and others, in 1720 is vaguely described as 1020 acres in the fork of the Rappahannock River in St. Mary's Parish.[33] I could not find any record of its transfer to Bannerman, but if this is the property he bought it is vaguely correctly placed to be the present Mahockney, owned by Mr. and Mrs. Trent Taliaferro. The latter have no record as to who owned the property before 1765. Winston, and then Bannerman probably were the first owners. Somehow it became the property of one Lawrence Duff, of London, who sold it to a Virginian in 1765. Duff is a Scottish name! Examination of the double chimneys of the present house suggests to this amateur that they might have been part of an earlier house than the very interesting one now standing.[34]

Despite the fact that he owned land in Essex County, the probabilities are that he lived in Urbanna. In his will he firmly fixed his residence as Middlesex County. Urbanna was the bustling little seaport of that county. It thus had a social life which Bannerman seemed to enjoy. It was rather centrally located to the whole county and was thus a trading center. Further evidence is the fact that he was mentioned in the will of Richard Walker, merchant of Urbanna, as a friend.[35]

Urbanna was the home port of a sloop owned by Makemie, the father of Presbyterianism in Virginia. That minister also owned a lot in Urbanna, despite the fact that Accomack County was the center of his religious activities.[36] Otherwise Presbyterians were relatively few in that area. There was no church of that faith in Urbanna, although a small congregation did exist a little later in the century just across the river in Lancaster County.[37]

Thus, it is entirely possible that Bannerman the Scot was a Presbyterian. We have also noted his interest in one of the Gordons. That is frequently a Presbyterian name.[38]

Such, then, is the glimpse we have of Mark Bannerman, physician, aspiring land-owner, literary dilettante. Of all the references to him perhaps that by Ramsay is the most tantalizing. Likely he was a coming man locally, but we know nothing of his medical deeds, nor how he died. His life was a mere flash in the pan. Even his surviving daughter leaves no trace; probably she died in childhood. He would be completely forgotten save for a brief mention by a Scotch poet. 'Tis a sobering thought if one reflects on his own self-estimated worth and then remembers the hundreds and thousands of physicians like himself and like Dr. Bannerman who missed immortality simply because they failed to submit sonnets of praise to poets.

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36. Personal communication from Mr. Carroll C. Chowning of Urbanna.
37. The Reverend James Waddell, famous as the "blind Preacher" is said to have begun his career there, fresh from Scotland.
38. Mr. Chowning.

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Miscellaneous . . . .

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Methocarbamol in the Treatment of Black Widow Spider Poisoning

While fatalities in arachnidism are rare, the condition is extremely painful due to severe muscular cramps, and untreated patients usually have a protracted convalescence.

A patient admitted to the Louise Obici Memorial Hospital made such a rapid recovery following black widow spider bite that the case is reported for evaluation in future cases.

A 26-year-old man had been bitten on the penis by a black widow spider while sitting on an outdoor privy. Within half an hour the pain was extreme and affected other parts of the body as well. When taken to the emergency room approximately two and one-half hours later, he was in great distress. Morphine, 10 mg. intravenously, followed by 100 mg. of hydrocortisone sodium succinate (Solu-Cortef) were administered. Pain was only slightly decreased and his abdominal wall was completely rigid, boardlike, and somewhat distended. Antivenin had been obtained by then, and 2.5 cc. was given intramuscularly. At the same time, 10 cc. of methocarbamol (Robaxin) was administered intravenously. While the methocarbamol was being injected, a dramatic change in the patient's condition took place. Relaxation of the tense muscles in the abdomen was felt after injection of 5 cc. and became more profound as the injection proceeded.

On conclusion of the injection, the clinical picture had changed completely. The patient was breathing quietly and no longer complained of pain. Later he received 10 cc. of 10% solution of calcium gluconate intravenously. Maintenance doses of methocarbamol were given orally, 1 Gm. every four hours. Two hours after he arrived at the hospital, the patient wanted to return to work and had to be persuaded to stay until the next morning for observation. He spent a comfortable day and night in the hospital and was discharged in the morning, having experienced no further pain or discomfort.

Abstract of paper published in J.A.M.A., June 11, 1960.

COMMENT

As other drugs were also used, the evaluation of methocarbamol was somewhat obscured. However, the noticeable changes—relaxation of abdominal muscles, vanishing of pain, and return of normal respiration—which took place during and immediately after the injection of methocarbamol could hardly have been caused by the morphine or hydrocortisone sodium succinate alone. Any effect of antivenin at this stage was excluded as it could not have brought about an immediate response after an intramuscular injection. Its beneficial effect later on is, of course, most likely, and it must be assumed that the calcium gluconate added to the well being of the patient. Greer[1] has commented on the treatment of arachnidism with calcium gluconate, and the results were regarded as good when the disability period was four days. Compared to the recovery of patients treated before, the recovery of our patient was remarkably quick.

Other trials with methocarbamol in the treatment of black widow spider poisoning should be made in order to estimate its real value in this agonizing condition.

SUMMARY

Methocarbamol (Robaxin) was used, in addition to treatment along previously accepted lines, in the treatment of a patient with black widow spider poisoning. Immediate relief was obtained. Further trials with this muscle relaxant should be made.

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Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Typhoid Fever at Bridgewater College, 1960

Epidemics of typhoid fever are infrequent in these days when public water supplies are approved by State Departments of Health, milk is pasteurized, sewage is disposed of through flush toilets and sanitary sewers, stream pollution is prevented, known typhoid carriers are supervised, and typhoid vaccine is advised for those going into areas of possible infection. Yet Virginia had an epidemic in 1959 and has had another in 1960. The fact that the two groups were made up of persons of entirely different socio-economic levels emphasizes that the disease strikes humans regardless of their status. Those involved in 1959 were migrant laborers who came into the State to pick apples near Winchester. The group in 1960 were college students who had reached the close of the second semester and had dispersed to their homes.

The epidemiologic approach to both outbreaks was the same, to look for a carrier who had the opportunity to spread the infection. In 1959 this was difficult and it involved the cooperation of the health departments in five States in addition to our own State Health Department and that of the locality involved. It was finally shown that a young woman who was never known to have had typhoid fever had joined the group about a month prior to the onset of the first case and had left for her home in Alabama before isolation of organisms from her stools could be attempted. She was followed by the Alabama State Department of Health on request by the Virginia State Department of Health, her stools were collected, cultures from them were identified as S. typhi. The phage type of these cultures was done and was shown to be the same phage type as that obtained on cultures from those who had become ill in Virginia.

In 1960 the first report came from the father of a young man who was taken ill in Tennessee. R. F., a white male, native of Henrico County, attended Bridgewater College. He left the college on June 1, and spent the night at his home. The following day he went to Virginia Beach where he remained that night (June 2) and a part of the following day. He spent the night of June 3 in his home. On June 4, he went back to Bridgewater College, was in his usual college quarters that night and had his meals in the college mess hall, as was his custom. He received his diploma on June 5, and returned to his home where he remained until June 7. On this date he set out in his car for Knoxville, Tennessee, ate dinner in Pulaski, Virginia, and reached Knoxville in the early morning hours of June 8. He started to work in Oak Ridge, Tennessee, on this date and was taken sick on June 9 or 10. His illness was diagnosed on June 25, as typhoid fever and this fact was reported by his father on June 27 to the Virginia State Department of Health.

On this same date the above information was transmitted to the health director of the Rockingham-Harrisonburg Health District. In acknowledging this report, the director stated that the college physician had reported to him that sources out of the State had informed him that several students had become ill since leaving the college, one had been diagnosed as typhoid and the others were under study.

On the afternoon of June 28, a physician in the Health Department of the District of Columbia called to report the illnesses of two young men of Washington and to warn that their infections had probably been acquired at Bridgewater College. On the following day the epidemiologist of the District Health Department advised by letter that those two young men, J.B., and M.C., had been diagnosed as having typhoid fever.

On June 29, the Director of the Division of Epidemiology and Communicable Disease Control of the Maryland State Department of Health called to report a case of typhoid fever in a resident of that State, C.S., a white female, a student who had recently returned from Bridgewater College. She also gave the name of a Virginia resident, P.H., a white female, student of Bridgewater College, who was said to be ill at her home.

Information concerning the four additional cases, two in the District of Columbia, one in Maryland, and the suspect in Virginia, was telephoned to the health director in Harrisonburg. He confirmed the fact that the Virginia girl had been a patient in the Rockingham Memorial Hospital and that her illness

had been diagnosed as typhoid fever. He stated that the college physician was collecting and sending to the laboratory of the State Department of Health stool specimens from employees of the college, especially those in the kitchen. He also said that typhoid vaccination clinics had been arranged.

On July 7, the Laboratory reported that S. typhi had been recovered from the stools of a man, 64 years of age, employed in the college kitchen. This man gave no history of having had typhoid fever and had been employed in the kitchen for the past seven years. Repeated stools continue to show the presence of S. typhi.

On July 8, the health director of the Albemarle-Charlottesville Health District reported a case of typhoid fever in a while male, V.C.M., who had been admitted to the hospital on June 27. This man was also a Bridgewater College student.

On July 11, the health director of the Arlington County Health Department reported a case of typhoid fever in M.V., a white male who had attended Bridgewater College. He had been ill since June 19.

On July 15, the health director of the city of Roanoke reported a case of typhoid fever in a white female, L.L.B., also a student who had attended Bridgewater College. The onset of her illness was June 24.

On July 20, the health director of the Rockingham-Harrisonburg Health District reported that, in response to a notice that had been sent to all students of the last semester by Bridgewater College, the mother of a student, B. W., had informed the college that her daughter had been ill in a hospital in Maryland with typhoid fever. This was confirmed by both the Maryland and Pennsylvania Departments of Health and the date of onset of her illness was given as June 22.

On July 25, the Maryland Health Department notified us that in the case of C. S., "the clinical picture was not compatible with typhoid fever" and they requested "withdrawal" of the diagnosis of typhoid fever in this case. On the same date a report was received from Harrisonburg that another Virginia case, S.M., a white female, student who had been at Bridgewater College, was a victim of the epidemic.

Difficulties in collecting information on those who became ill were increased by the fact that the college year of 1959-1960 had ended and that the students had scattered to their homes. Anxieties were thereby intensified and fears developed that the disease might be spread in many communities. There were further anxieties that there might be an outbreak among those attending the summer session at Bridgewater College where the kitchen attendant with stools positive for S. typhi had been working until his carrier state was discovered. Stool cultures from the other employees of the college were all negative.

In all instances, at the time reports of cases were received, requests were made that cultures from the patients be sent to our laboratory for phage typing. In the cases of P.H. and V.C.M., both had recovered and had returned to their homes when the reports were made. There were no cultures available, they were not shedding typhoid organisms, and cultures could not be obtained. It had been understood that in the case of R.F., the phage typing would be seen to in Tennessee. This has recently been reported as S. typhi, degraded Vi resembling B_2. There was delay in sending the culture from L.B.B. for phage typing; the report has come through that the culture showed S. typhi, degraded Vi resembling B_2. The phage type of cultures from J.B. and M.C. were reported by the District of Columbia Health Department as being B_2. The phage type of cultures from B.W., was reported by the Maryland State Department of Health as B_2. The phage type of cultures from M.V. and S.M. were both reported as "S. typhi degraded Vi resembling B_2". This same report was made on the phage type of the culture from the carrier.

Since the clarity of the end-reading of the phage type is dependent on the character of the organisms in the culture, something must have prevented a clear-cut reading in the cases of M.V., L.M., and the carrier but they were sufficiently clear for the statement to be made that the three resembled B_2. This was likewise true in the cases of R.F. and L.B.B. It would seem, therefore, that the organisms in all were S. typhi, Phage Type B_2. It is presumed that those who were ill received their infections while at Bridgewater College; that the source was a common one and was probably the newly-discovered carrier, the kitchen employee, who is shedding S. typhi of the Phage Type B_2.

The question naturally arises, "Why was typhoid not spread sooner by an individual employed for seven years in handling food served to several hundred people daily?" The answer cannot be given.

Cancer Trends . . . .

WILLIAM R. NELSON, M.D.
Richmond, Virginia

The Natural History of Cancer

The principles of treatment of malignant disease depend to a great extent upon the knowledge of its natural history. Needless to say cancer is not a single entity by any means but a disease process which encompasses a multitude of biologic, pathologic and clinical entities whose characeristics, at the extreme ends of the spectrum, may be as different as those of the common cold and poliomyelitis. The knowledge of natural history stems from the study of the growth and spread of cancer and also of its effect on the human organism. Neoplasms spread by direct extension, lymphatics, veins, arteries and by implantation. Bone, periosteum, cartilage and dense connective tissue capsules may be natural barriers against this extension. Carcinoma, the malignant form of cancer in epithelial tissues, metastasizes by and large through the lymphatics, and tumor cells are often first observed in the periphereal sinuses of nodes. A metastatic lymph node may be the first indication that a neoplasm exists. Sarcomas metastasize to nodes in five to ten percent of cases, a fact that has been known only in recent years. Spread by veins is characteristic of this neoplasm as well as those of the kidney, while all tumors may at times demonstrate this tendency. The vertebral vein plexus is important in this venous dissemination and may account for bizarre metastases. Arterial spread is much less frequently observed, for it is a well known fact that arteries usually remain patent even though surrounded by large tumor masses. In carcinomas of the vocal cord, tumors may remain localized for many years because of the cartilagenous obstruction to extension. On the other hand, in the pharynx and the extrinsic or extra-cordal portions of the larynx, spread occurs rapidly because of the rich lymphatic bed and the lack of anatomical barriers.

Certain tumors have inherent biologic characteristics which make for varying degrees of widespread dissemination. Carcinomas of the prostate, thyroid, breast and kidney grow well within bone. Muscles both smooth and striated are seldom the site of metastases, and the same is true of spleen, pancreas and kidney. Some tumors can apparently grow in any organ, the best known of these being melanoma which is seen growing in heart muscle in over fifty percent of patients dying with this disease.

It is pertinent to this discussion to outline some fundamental principles regarding the frequency and type of metastases from cancers to bone since great confusion is often present regarding the need for skeletal surveys in the general work-up of patients with neoplastic disease. It goes without saying that direct extension by any tumor may involve bony structures. Metastases to the skeleton on the other hand are blood borne in nearly every instance, and certain malignant tumors have a propensity to bony deposition in their vascular dissemination. Ossophile carcinomas, those of breast, prostate, thyroid, kidney and lung, have a marked tendency to bony metastasis. The ossophobe carcinomas, however, very seldom go to the skeleton and in this group should be listed carcinomas of the skin, oral cavity, esophagus, cervix, stomach and colon.[1] The spine, pelvis, and upper femora, in addition to the skull, seem to be quite receptive to the growth of tumor emboli. Those bones distal to the elbows and knees are on the other hand seldom affected. The type of metastasis in bone may be important in determining the location of a hidden primary in a given patient presenting with skeletal lesions. Radio-opaque metastases indicate osteoblastic tumor deposits, this phenomenon being characteristic of breast and prostate cancer. Cancers of the kidney and thyroid, however, usually produce osteolytic lesions which show up as radiolucent areas. Multiple metastases in the spine and pelvis commonly occur with breast and prostate neoplasms while solitary lesions involving extremities are not infrequently observed in cancers of the kidney and thyroid. Lung cancer often may spread to the skeleton resulting in osteolytic areas which are occasionally the first indications of a neoplastic process. Clear cell adenocarcinoma of the kidney, misnamed hypernephroma, has frequently caused pathological fracture of the humerus, this phenomenon sometimes being the first sign of cancer in an otherwise apparently healthy individual. Neuroblastoma of adrenal origin often produces skeletal deposits which may resemble primary bone tumors in children. It should be obvious from such data

that great importance lies in knowledge of the frequency and mode of skeletal metastases in studying cancer patients. If such facts are not appreciated, physicians may order costly and time wasting bony surveys in apparently operable cases of cancer of the oro-pharynx, gastrointestinal tract and cervix.

Fundamental to the study of survival statistics in neoplastic disease are data concerning the mean duration of life from apparent clinical onset in untreated cancer. The following table is from Forber[2] who analyzed a large number of primary malignant tumors in relation to longevity without treatment following the onset of symptoms.

Primary Site	*Cases (Number)*	*Mean Duration (Months)*
Breast	64	39.3
Bladder	33	18.8
Prostate	30	16.6
Uterine Cervix	75	15.2
Rectum	94	14.3
Tongue	55	13.7
Stomach	228	12.2
Ovary	26	10.1
Palate, etc.	36	8.7
Larynx	26	8.6
Colon	73	8.4
Lung	45	7.8
Esophagus	57	6.2
Pancreas	73	5.9
Liver	30	5.6

It is apparent from these figures that certain cancers generally are relatively slow in producing lethal effects in the untreated state. (The five year survival rate of untreated breast cancer is twenty per cent.) Survival statistics must take such data into consideration if we are to demonstrate the effectiveness of any therapeutic regimen. Another interesting fact obtained from analysis of hundreds of cases is that, contrary to the commonly held belief concerning the more rapid progress of cancer in young individuals, there is no significant or consistent increase or decrease in the mean life span by age at onset of neoplastic disease.[3]

The time interval between tumor resection and the appearance of metastasis or recurrence varies tremendously among the various neoplasms. Cancer of the breast, melanoma and thyroid carcinoma may crop up ten to twenty years after the original treatment, while such delayed recrudescence is unknown in neoplasms of the oro-pharynx, lung and esophagus.

With a detailed knowledge of this natural history of cancer the physician is armed with an extremely important weapon which may be used not only to aid in the cure of certain rapidly growing neoplasms but may serve as a defense against common diagnostic and therapeutic errors.

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Mental Health . . . .

C. J. GORDON BLACKFORD, M.D.

The Bristol Mental Health Clinic

The Bristol Mental Health Clinic was founded through the efforts of local organizations and the interest of the Departments of Mental Hygiene and Hospitals in both the State of Tennessee and the Commonwealth of Virginia. It started operation in the Spring of 1958. It is believed that this agency is the only Mental Hygiene Clinic in the United States in which the governments of two states, two cities, and two counties have successfully cooperated. The interstate nature of the Bristol Mental Health Clinic makes for some difficulties in the way of bookkeeping but otherwise it runs smoothly without any of the complications which might be expected in a clinic financed by six separate bodies.

One of the initial difficulties in setting up the clinic was the decision as to location. The Attorney Generals of both states had ruled that a State agency must be located in their respective domains. The most desirable site was at Bristol Memorial Hospital which is located in Tennessee. However, the Nurses' Home of the Memorial Hospital is across the Virginia line, hence technically in the Commonwealth of Virginia. Therefore, it was possible for the clinic to be physically located in Virginia and thus satisfy Virginia's requirements. The State of Tennessee prior to the actual opening of the clinic passed permissive legislation allowing Tennessee employees to be employed across the border. This, of course, was not too difficult since Tennessee is so set up that their employees are actually employees of the local governing board rather than the State.

Under the constitution of the clinic all the activities are directed by a Board of Directors, aided by various committees. This Board is composed of local citizens who serve a period of three years. All professional matters are subject to the approval and professional supervision of the Department of Mental Hygiene and Hospitals in Richmond, Virginia, and the identical authority in Nashville, Tennessee.

The Board of Directors meets each month, holds a business meeting and is then addressed by the Director of the clinic or by the psychologist on subjects of interest to the Board such as the way the clinic operates, the way therapy is carried out, what benefits may be said to occur from these efforts.

Financing is fairly complex. The City of Bristol, Virginia, and the County of Washington, Virginia, appropriate tax funds to be paid to the clinic as matching funds. These funds are also matched by equal funds from the City of Bristol, Tennessee, and the County of Sullivan, Tennessee. In addition, contribution is received from the Bristol Area United Fund. The funds received from the Cities of Bristol and the Counties of Sullivan and Washington are matched by the Department of Mental Hygiene and Hospitals in Richmond, with General Funds and Federal Funds appropriated for the purpose. The Department of Mental Hygiene and Hospitals in Nashville does not match this sum in exactly the same way. Tennessee provides one quarter of the total budget (around eleven to twelve thousand dollars per annum). This is approximately equal to the sum paid by the Commonwealth of Virginia.

Further funds are available through patients' fees. Fees range from nothing per session to as high as $10 per session. A schedule of fee payments related to a family income is laid down by the executive board. This means that a person applying for help at the Mental Health Clinic with an income of $8,500 per year and only one child would be expected to pay a full ten dollars per session. People with lower incomes or heavier commitments in numbers of dependents would pay proportionately lower amounts. Those who are considered to be medically indigent pay nothing.

Personnel Policies: The psychiatrist-director, the office manager, the secretary and the janitor are paid and employed by the State of Virginia and enter into a share of the pensions and other privileges of employees of the State of Virginia.

The psychologist and the social worker are employed by the executive board of the clinic. In this relation the State of Tennessee disclaims any authority over these personnel. The State of Tennessee requires only that it shall scrutinize the qualifications and suitability of any person so appointed. At present this has caused some difficulty in as much as

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Approved for publication by Commissioner, Department of Mental Hygiene and Hospitals.

these essential personnel are not eligible for any pension scheme. To this end the local board has asked insurance companies to make proposals for the provisions of such pensions. When these terms are received, approval for their institution will be sought from the Department of Mental Hygiene and Hospitals in Virginia and in Tennessee.

The Practices of the Clinic: The clinic functions as a general purpose clinic has no limitation on the type of patient which it receives in terms of age. The clinic receives and will attempt to treat any mentally sick or emotionally ill person who is not considered to be actively dangerous to himself or others. The clinic receives and supports patients who have been discharged from Mental Hospitals in Virginia and in Tennessee. The clinic receives a number of children from various agencies such as the Department of Public Welfare and the Schools who require psychological testing and evaluation to know how to help these children. About eighty patients are in active treatment during an average month.

The successful operation of this clinic for more than two years has demonstrated the possibilities of inter-city, inter-state and inter-county cooperation and could well be imitated elsewhere in Virginia and other states who might have the need for a clinic in which the natural ethnic, cultural and commercial community involves separate political bodies.

Millions Rely on Laxatives

At least 100 million Americans have become addicted to unnatural elimination aids because of unfounded worry over "regularity," according to Today's Health magazine. In an article appearing in the October issue of the American Medical Association publication, Charles W. Hook, M.D., Augusta, Ga., said:

"Old-fashioned habits, half-truths, and incorrect beliefs, and today's advertising have brainwashed the American public to accept the idea that a daily bowel movement is a necessity for everyone.

"Your doctor knows nothing could be further from the truth!"

The idea of regularity "has been swept down the ages on a tide of patent medicines.

"While the patent medicine men have had their field day selling laxatives and purgatives, the chiropractors, naturopaths, and food faddist have found a new wealth in the American worry over 'regularity.' "

Americans spent more than $138 million for laxatives and elimination aids in 1958.

Genuine constipation is generally caused by overactivity of the digestive tract. Worries and anxieties often cause the bowel to move too fast and go into spasm or cramp, causing constipation. If the bowel moves too fast but does not go into a spasm, diarrhea usually results. Real constipation (hard, dry bowel movements) should be brought to the attention of the family physician.

Dr. Hook warned against the dangers of self-medication, saying that long use of elimination aids makes the bowel lazy and dependent on such aids. He said some physicians believe up to 90 per cent of their patients had become addicted to such aids and were using them to extremes. The public should be advised "to leave their digestive and elimination systems alone."

Pre-Paid Medical Care....

Edited by
RICHARD J. ACKART, M.D.

Hospital Utilization Under Insurance

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Community expenditures for hospitalization are compounded of two factors: *cost per patient day* and *volume of patient-days per 1000 persons per year.* Over the last half century, the number of hospital beds relative to population has greatly increased, and hospital utilization has steadily risen.

Factors determining hospital utilization rates are numerous and complex. A study on "Hospital Utilization Under Insurance", has been prepared by the AHA. The concept of the study is that a day of hospital care depends on the convergence of three determining forces: *the patient, the hospital* and *the physician.* There are several possible characteristics of each determinant which may contribute to a high or low rate of hospital utilization at any time and place.

Determinants Involving the Patient Include:

1. *Incidence and prevalence of illness:* This is influenced by the age-sex composition of the population. And definitions of illness or injury considered appropriate for hospitalization are also relevant.
2. *Attitudes of people toward illness:* These are basic and are influenced by education and pressure of society.
3. *Costs of medical care to the patient:* Incentives for hospitalization may be created when this is insured while ambulatory care must be privately financed.
4. *Marital and family status:* Persons living alone, widowed, divorced or single, are hospitalized at higher rates than married persons of comparable ages and illness needs. Families with working mothers are also hard-pressed to cope with illness at home.
5. *Housing and social level:* Hospital use varies with housing, urban-rural location, and other standards of living which may influence the suitability of medical care in a personal home.

Determinants Involving the Hospital Include:

1. *The supply of hospital beds:* While the ratio of beds to population in an area obviously sets a top limit on hospital use, more subtly the bed supply also influences the lower limit. Thus, given insurance, hospital beds tend to be used. Medical judgment on urgency of need for hospitalization is inevitably influenced by the relative accessibility of beds.
2. *Efficiency of bed use:* Scheduling of hospital procedures, departmentalization, hours of work, etc., may affect the length of stay and hence, the utilization rate.
3. *Financing hospital costs:* The system of payment for hospital care by insurance, through per diem amounts or billed charges, may create administrative incentives for maximum occupancy of a given bed complement.
4. *Out-Patient departments:* Rate of admissions to hospital beds is influenced in part by the availability of adequate diagnostic and treatment services for out-patients.

Determinants Involving the Physician Include:

1. *Supply of physicians:* Up to a certain level, a greater supply of physicians in relation to population will yield more medical care and more hospital use. Busy physicians, however, may admit patients more frequently to save valuable time. Thus, an increased supply of doctors beyond a critical level can reduce hospital use.
2. *Method of medical remuneration:* System of payment of physicians for their services may create incentives for or against hospital admissions.
3. *Nature of community medical practice:* The feasibility of diagnosis and treatment of patients in private offices or group medical clinics for various conditions naturally influences the tendency to hospitalize.
4. *Medical policies in the hospital:* Length of stay of patients is influenced by professional policies on early ambulation, rehabilitation, consultations, etc.
5. *Level of medical alertness:* Lengths of stay of

patients, especially long-term cases, are affected by the diligence and attention of attending physicians.

6. *Medical teaching needs:* Patients may be kept in a hospital for prolonged periods to meet the needs of teaching medical students or interns.

Each of these potential influences on the rate of hospital use may operate to a high or low degree in a given hospital and community setting. Insofar as these forces may be contributing to high over-all rates of use, each calls for a different corrective approach. Some of the corrective actions are within the power of individual hospitals or hospital insurance plans, while others involve the medical profession and its patterns of organization, and still others depend on the structure and function of the large society.

In each of the 16 factors reviewed, there are forces at play which drive the hospital use rate upward, others drive it downward. One cannot blithely consider the elevating factors good, however, and the reducing factors bad.

The level of hospital use which is "proper" for the U.S. is ultimately a question of social values—how we wish to spend our national economic resources. Perhaps the most basic determinant of all, given widespread insurance, *is the supply and distribution of hospital beds.* This may call for more deliberate planning and controls than we have so far been willing to undertake in any state.

Cut Auto Deaths

Physicians believe safer "packaging" of automobile passengers could reduce traffic deaths and injuries, according to an opinion survey made by the American Medical Association.

Members of the American Association for Automotive Medicine (AAAM), most of whom have competed in sports car races and promoted safer auto racing, were polled at a recent safety seminar in Dearborn, Mich.

The physician experts in automotive medicine rated the seat belt the most important single, economically feasible device now available to protect passengers.

"Packaging a passenger in an automobile follows the same principles of packaging used to protect any valuable object being transported," according to Dr. H. A. Fenner, Hobbs, N.M., newly-elected AAAM president.

"The automobile, like any container being used to transport valuable contents, must be designed so as not to crush in on the contents, burst open, or spill out the contents."

In addition to seat belts, which many believed should be compulsory, the physicians recommended these "packaging" improvements:

—Padded instrument panels, roof supports, and steering column posts.

—Modified dash board so knees would not hit it directly in an accident.

—Safety door locks.

—High seat backs to prevent "head snapping."

—Deep dish steering wheels.

—Elimination of junk-accumulating ledge behind the back seat.

—Elimination of all dangerous pointed objects, projections, sharp corners, and other hazards in the car's interior.

In addition to these packaging improvements, better brakes and outside mirrors were recommended.

One M.D. suggested that safety features should be "built in," not sold as "extras."

The physicians also believed many highway accidents could be prevented by compulsory driving training courses in all high schools; improved licensing procedures, including periodic physical examinations of drivers by physicians; uniform highway marking ssytems, and more stringent enforcement of traffic regulations.

There was one suggestion that every effort be made to devise a test to predict driver behavior. "Many persons driving on the highways today are neither physically nor mentally fit to drive."

The survey was made by The AMA News, a newspaper published for physicians.

The A.M.A., the National Safety Council, and the U.S. Public Health Service currently are engaged in a study of ways to educate the public to the advantages of seat belts. A year-long pilot program was begun last February in Fort Wayne, Ind., with the cooperation of local groups, to determine techniques a community can use to encourage the use of seat belts.

1960 Public Relations Institute

Who says "Lightning doesn't strike twice in the Same Place?" Well, it does and I have proof of it.

Miss Carol Towner, Manager of the Department of Special Services, again presented another one of her highly interesting and informative PR Institutes and it was at the same place, the inimitable Drake Hotel, Chicago, whose slogan is "The Art of Inn Keeping is Still in Keeping" and if you are ever in doubt, just register there for a night or a week.

This year the Theme was patterned after the immortal Robert Burns' phrase, "Oh wad some power the giftie gie us—To see oursel'es as ithers see us".

Richard Reinauer, Director, Radio, Television and Motion Pictures, Communciations Division, American Medical Association, started the Thursday morning session with a humorous monologue in which he impersonated Abe Lincoln's James Haggerty.

The main points stressed during the morning session were: The importance of the Public Image versus Reality. The keynote address by Pierre Martineau, Director of Research and Marketing for the Chicago Tribune; Cracks in The Mirror by Gerald J. Skibbins who urged that a strong organization may require positive constructive action and also warned that we must explain and correct our bad works. George Brandenburg, Russell Roth and Herbert Carlborg discussed "How People See Doctors". It was most encouraging to learn of the improved relation between the Medical Profession and The Press. However, there were words of caution that everything is not perfect by a long ways, and there is still a tendency of producing TV Shows that instead of portraying a constant pattern of perfection, might portray some controversial points that are present within our profession.

Dr. Nicholas Dallis, the author of Rex Morgan, M.D. and Judge Parker, gave an interesting explanation of "Why People See Doctors As They Do". Assisting Dr. Dallis were Prof. Raymond Mack and James E. Bryan. Their chief criticism centered on the loss of "The Art of Medicine" and its use by the doctor in his every day practice of medicine.

Thursday afternoon was devoted to "The Political Outlook" by Ernest B. Howard and "Medicine's Political Responsibilities" by Leo Brown.

There followed a Court Room Scene woven around the necessity of "Facing Up To What We See" in which three defendants were on trial.

1. Case of The Blurred Image—Need for action on aging.
2. Case of The Distorted Image—Need for answer to Cost Problems.
3. Case of The False Image—Need for More Doctors.

I was very impressed by the legal knowledge of the Doctors on the Witness Stand. Their cases followed much the pattern of The Perry Mason TV Show, namely, the District Attorney didn't win a single case—the defendant was always freed and the dismissal of the charges were obtained only after the presentation of very convincing evidence.

Following the adjournment of Court, everyone in the Court Room enjoyed a most delightful Reception.

Friday Morning, Leo Brown placed phone calls to Annapolis, Md., and Dayton, Ohio, and interviewed people regarding their opinion of their doctors and doctors in general in the community, if the services were satisfactory, if the charges were reasonable and if doctors were available at all times. In every instance, the replies were most favorable. Now this next really made me feel good—each person called said they had a family doctor who was a G.P. His charges were reasonable, he came when called and referred his patients to a specialist whenever indicated.

Jim Reed, Editor of AMA News, urged Doctors "Don't Hide Your Light". He was ably assisted by Loren G. Schultz, Charles Harrison, Jim Regan and John Rineman and concluded with this summary:

"It is to the advantage of physicians, hospitals and the press that the public be provided with prompt and accurate information within the bounds of good taste.

"Since the press is responsible for what it publishes or puts on the air, it must be the sole judge of what shall be published.

"But where the source of news is a physician, the press should assume the obligation to consider the life and health of patients and to recognize the ethics by which Doctors are bound.

"Perhaps both the medical profession and the

press should go to each other periodically for a checkup—to see how they are doing. Find out if your relations are really working. If problems develop, sit down and talk them over . . . diagnose the disease and treat it. Practice preventive medicine in press relations, too."

The session concluded with a review of Community Service Projects and an evaluation of PR Programs in various states. The Moderator referred to our Bob Howard as a PR Expert and called on him for a report of PR activities in Virginia but, due to a close plane schedule, Bob had left the ballroom about 20 minutes earlier.

At the final luncheon, Leo Brown urged all of us to polish up our own image and sell Institute Project Suggestions to members back home.

I am very grateful for the privilege of representing The Medical Society of Virginia at the 1960 Public Relations Institute. I hope this sketchy report will stimulate interest in our PR Programs. Abstracts of the meeting are available and will be sent to local chapters on request.

John Wyatt Davis, Jr.
Chairman, Public Relations

Physical Rehabilitation

A new approach to the physical rehabilitation of brain-injured children which does away with braces and crutches has brought "encouraging results," according to a Philadelphia medical group.

A two-year study of 76 children from 1 to 9 years old with severe brain injuries is reported in the September 17th Journal of the American Medical Association.

A program was worked out for each child and taught to the parents who carried out the program at home. The patients were seen every two months at the Rehabilitation Center at Philadelphia.

Emphasis was placed on permitting the child to stay on the floor—the normal child's "athletic field"—where he would have an opportunity to achieve the functions related to the undamaged part of the brain. All nonwalking children were required to spend all day on the floor and encouraged to crawl or creep. They were removed from the floor only for meals, to be loved or to be treated.

When a child reached the stage when his injury prevented him from advancing, exercises were begun imposing bodily movements for which the damaged part of the brain normally was responsible. These exercises were carried out regularly with the help of adults for five minutes, four times daily. For example, one adult would move the child's head, another his right arm and leg and another the left arm and leg.

"It should also be stressed that during the study all other programs of therapy or habilitation were discontinued and that no mechanical aids, such as braces or crutches, were used."

The results were "sufficiently encouraging to warrant an expanded and continued study of these procedures."

"Of the 20 children unable to move and the 17 unable to walk, none remained at these stages. Twelve children were ready to walk at the end of the study. Eight were creeping . . . and four were holding onto objects.

"Eleven children learned to walk completely independently. All but two of these had begun treatment at, or before, two years of age, and all achieved completely independent walking in less than 12 months of treatment."

Authors of the article are Robert J. Doman, M.D., Elizabeth Zucman, M.D., Carl H. Delacato, Ed.D., and Glenn Doman, P.T., all of the Rehabilitation Center at Philadelphia, and Eugene B. Spitz, M.D., Children's Hospital, Philadelphia.

Woman's Auxiliary....

The New President

Mrs. F. Clyde Bedsaul, *President*
Woman's Auxiliary

Rosamond Vaughan Bedsaul, the wife of Dr. Frazier Clyde Bedsaul, was born and reared at Spring Valley, Grayson County, Virginia, the daughter of Mr. and Mrs. John Boring Vaughan. She attended public schools in Grayson County, was graduated from Marion College and attended Emory and Henry College. Prior to her marriage, she taught at Fries High School.

Dr. and Mrs. Bedsaul located at Floyd in 1932.

Mr. Bedsaul is an active member of the Floyd Methodist Church where she is a church school teacher, a member of the official board, chairman of the Spiritual Life Committee of the Woman's Society of Christian Service and has served as president of this organization.

In club activities and community projects, Mrs. Bedsaul has been an outstanding leader. She is a charter member and past president of the Floyd Courthouse Woman's Club, and has served as chairman of various committees since the club was organized. She is regent of the Floyd Courthouse Chapter, Daughters of The American Revolution, is immediate past State Program chairman of the D.A.R. and is a member of the Jamestowne Society.

Mrs. Bedsaul is genuinely interested in medical society auxiliary work. She has served as president of the Woman's Auxiliary to the Southwestern Virginia Medical Society, immediate past vice president of the Woman's Auxiliary to the Virginia Academy of General Practice and as chairman of the Health Education Committee of the State Auxiliary.

In her home, she is a charming hostess. She enjoys reading, collecting antiques, of which she possesses some rare pieces, and music. Her flowers also bring much joy and relaxation to one who gives so much of herself to life's demands.

Virginia McMillan Porter
(Mrs. Walter A. Porter)

Contributions Through AMEF Increase

As of June 1, 1960, the receipts of the Foundation were 132% above those through June 31, 1959—a total of $295,302, as compared to $126,912 in receipts the previous year. The 1959 figure includes one extra month because the ending of the fiscal year was changed to January 31st.

Forty-seven states have shown an increase over last year's figures. It is hoped that this promising trend continues, making 1960 a banner year.

Book Announcements . . . .

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receitps. However, we assume no obligation in return for the courtesy of those sending us same.

Communicable and Infectious Diseases. Diagnosis, Prevention, Treatment. By FRANKLIN H. TOP, A.B., M.D., M.P.H., F.A.C.P., F.A.A.P., F.A.P.H.A., Professor and Head, Department of Hygiene and Preventive Medicine, State University of Iowa; Director, University Department of Health, and Director, Institute of Agricultural Medicine, State University of Iowa; Consulting Director, State (of Iowa) Hygienic Laboratories; etc. And Collaborators. Fourth Edition. The C. V. Mosby Company, St. Louis. 1960. 812 pages. With 122 Figures and 15 Color Plates. Price $20.00.

Nine Months' Reading. A Medical Guide for Pregnant Women. By ROBERT E. HALL, M.D. Illustrated by Robert Demarest. Doubleday & Company, Inc., Garden City, N. Y. 1960. 191 pages. Price $2.95.

Biochemistry of Human Genetics. Ciba Foundation Symposium Jointly with The International Union of Biological Sciences. Editors for the Ciba Foundation G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc. Little, Brown and Company, Boston. 1960. xii-347 pages. With 60 Illustrations. Price $9.50.

The Lifespan of Animals. Ciba Foundation Colloquia on Aging. Volume 5. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A. Little, Brown and Company, Boston. 1960. xii-324-46 pages. With 58 Illustrations and Cumulative Index to Volumes 1-5. Price $9.50.

The Reluctant Surgeon. A Biography of John Hunter. By JOHN KOBLER. Doubleday & Company, Inc., Garden City, New York. 1960. 359 pages. Price $4.95.

The scope of this book surpasses the life of John Hunter and actually encompasses the practice of medicine and surgery within England during this period of history. As the outstanding figure of that period John Hunter serves mainly as a focal point around which this information is presented in an imaginable, well-organized, and readable manner. Because this book is not strictly a biography the details of John Hunter's earlier formative years and the relationship with his elder brother, William, are only sketchily presented.

Various chapters of the book are devoted to the explanation of some of these common practices. These include the formation and management of the various types of hospitals and infirmaries, with graphic descriptions of the type of patient care given; details of the gullible public and medical profession in describing the prevalent folk-superstitions and practices and the outstanding medical hoaxes of the day; and the highly profitable but criminal practices used to obtain dissection specimens. In addition the relationships between John Hunter and P. Potts, W. Jenner, the Munro brothers, Matthew Bailie, and others is fully detailed.

The practice of medicine and surgery in that period was burdened with and stifled by custom, ignorance, and bigotry. The sciences of biology, zoology, veterinary medicine, and others were struggling for recognition, and these were largely controlled by physicians, the foremost being John Hunter. He presented himself to his pupils and to the public as a very poor student of nature, freely acknowledging his ignorance, but always espousing the desire to learn the truth. His scientific discoveries in the fields of medicine, surgery, obstetrics, anatomy, biology, and zoology are legion, and his museum has not since been equalled in scope and interest by any single person, but his greatest contribution to science was the then foreign concept that experimentation leads the way to truth. Then, even more than now, many members of the "learned" professions held to theories evolved many years previously, and they stoutly resisted any attempts at a change of any type.

Throughout this entire book one gains the impression that here was a person who, though lacking the desirable gentlemanly qualities of that day and age, nevertheless enjoyed to the fullest the eternal quest for knowledge and truth.

MAX S. RITTENBURY, M.D.

Editorial . . .

Dr. Guy W. Horsley

ONE of the penalties of living in the upset world of today, with its ever changing and frequently lessening values, is the sense of uncertainty to which we are subjected and the seeming absence of the ancient verities. With these thoughts as a background it is with real pleasure that we find the latest member of a long line of outstanding Virginia physicians elected to the highest office in the power of The Medical Society of Virginia to bestow.

GUY WINSTON HORSLEY, M.D., *President*
The Medical Society of Virginia

Dr. Guy Winston Horsley was born in Richmond on February 8, 1905. His father, Dr. J. Shelton Horsley, was for many years one of the foremost surgeons in the South. He, too, was President of The Medical Society of Virginia. Our president's uncle, Dr. Fred M. Horsley, practiced in Lovingston, Virginia, as did his great-grandfather, Dr. John Shelton, an outstanding physician of ante-bellum days. Another great-grandfather, Dr. James Lawrence Cabell was Professor of Comparative Anatomy, Physiology and Surgery at the University of Virginia for 40 years and Surgeon-in-Chief of The General Hospital, situated in Charlottesville, during the four years of the Civil War. He also was President of The Medical Society of Virginia and the National Board of

Health. Nineteen other members of Dr. Cabell's family practiced medicine in Virginia during the 18th and 19th centuries so Dr. Horsley's medical Cabell kin are too numerous for tabulation.

Dr. Horsley's esteemed mother, Mrs. Eliza Braxton Horsley, was the daughter of Dr. Tomlin Braxton, who graduated from the University of Pennsylvania in 1852 and practiced in King William County for nearly half a century. Her uncle, Dr. William A. Braxton was killed while serving as surgeon to Mosby's command in 1864 and her grandfather, Dr. Corbin Braxton practiced in King William County, which he also represented in the State Senate and as a member of the Convention of 1851.

Dr. Guy Horsley's elder brother, the late Dr. John S. Horsley, Jr., was Virginia's pioneer plastic surgeon. With such a medical heritage it was not surprising that Dr. Horsley entered the Medical School at the University of Virginia in 1925 after receiving his B.S. degree, in three years, from the same institution. He was elected a member of Sigma Xi, as the result of investigative work he carried out while an undergraduate in medicine. Following his graduation in 1929, he served as interne for one year and surgical resident for two years at St. Elizabeth's Hospital, under the guidance of his father.

He practiced surgery and gynecology in Richmond from 1932 until the 45th General Hospital was reactivated shortly after Pearl Harbor. He entered active military service as a major and was discharged four years later with the rank of colonel. During this period he was Assistant Chief of Surgery, and later Chief of Surgery of the 45th General Hospital during its long sojourn in North Africa and Italy. He subsequently was Chief of the Surgical Service at the McGuire General Hospital in Richmond. He was awarded the Legion of Merit in 1945 for his war-time service.

After World War II, Dr. Horsley returned to private practice at St. Elizabeth's Hospital and the teaching staff of the Medical College of Virginia, where he now is Associate Professor of Clinical Surgery. His teaching duties have included Surgical Consultant to the McGuire Veterans Administration Hospital since its inception in 1946.

Since the death of his father in 1946, Dr. Horsley has been Surgeon-in-Chief and the active head of St. Elizabeth's Hospital. In 1952 he was President of the Richmond Academy of Medicine. All of these activities have not prevented him from participating in many other time-consuming offices. He was a member of the State Board of Medical Examiners from 1947 to 1951 and served as President for the last two years of his term. He has been a member of the Blue Cross Board since 1940 and for the past five years he has served on the Blue Shield Board as well.

His professional organizations read like a roster of the senior surgical societies of America. In addition to the usual local, state, southern and national medical groups, he holds membership in the following surgical organizations: Richmond Surgical & Gynecological Society, Virginia Surgical Society, Southern Surgeons Club, Excelsior Surgical Club, American College of Surgeons, Society of Medical Consultants to the Armed Forces, Southern Surgical Association, American Surgical Association, and International Surgical Society. He is also a Diplomate of the American Board of Surgery.

Dr. Horsley's attendance at the meetings of these societies has been so faithful that it is difficult to determine how he found time to edit the last edition of the Horsley and Bigger "Operative Surgery" or prepare the many original articles that now number well over 50 which have appeared in the surgical literature.

Dr. Horsley is a member of the Commonwealth Club, the Country Club of Virginia, the Richmond German and the Society of Virginia Creepers. His patriotic societies include the Descendants of the Signers of the Declaration of Independence and the Military Order of World Wars.

In 1936 he married the attractive and talented Miss Mary Clare Wright of Petersburg. They have three children—Mrs. Cornelius Van Leuven Stewart of Baltimore, Miss Alice Cabell Horsley and Guy Winston Horsley, Jr.

For recreation Dr. Horsley has restored the Braxton family place "Chericoke" in King William County. This pre-revolutionary plantation shipped tobacco from its wharves on the Pamunkey river to English ports for many years. Under Dr. Horsley's energetic management its broad acres are again productive and "Chericoke" has resumed its rightful place as one of Virginia's outstanding river plantations.

We may be sure that Dr. Horsley will bring the same habit of success that has characterized all of his professional, military, literary, organizational, and personal activities to the Presidency of The Medical Society of Virginia and under his conscientious leadership, we may anticipate a most fruitful year.

Harry J. Warthen, M.D.

Current Currents

This issue of Current Currents is being used to report some of the more important actions of your House of Delegates during the recent Annual Meeting at Virginia Beach.

ACCREDITATION & ATTENDANCE AT HOSPITAL MEETINGS: The House adopted a resolution calling attention to certain regulations of the Joint Commission on Accreditation and the adverse effect they have on organized medicine generally and component societies specifically. The Society's delegates to the American Medical Association were directed to bring these matters forcibly to the proper reference committee and the Council of The Medical Society of Virginia was authorized to hold conferences immediately with representatives of the Joint Commission on Accreditation.

MEDICO-LEGAL PLAN FOR SCREENING MALPRACTICE CASES: This plan, only recently drawn by committees representing The Medical Society of Virginia and Virginia State Bar Association, was adopted with the recommendation that members of component societies follow the suggested procedure for a trial period of at least twelve months, contingent upon the acceptance by the Bar Association of the agreement, and that statutory enactment be sought to prevent records and deliberations of the committee from being subject to subpoena.

RELATIVE VALUE SCHEDULES: The House passed a resolution adopting the California Relative Value Schedule as a guide and urging those component societies interested in obtaining further information concerning the schedule to indicate their willingness to be represented at a State or District meeting on the subject.

IMPROVED MEDICAL SERVICE: After hearing an inspiring and informative address by Dr. John Donaldson, Pittsburgh, on how the Pennsylvania Medical Association is working to provide improved medical service to citizens of that State and at the same time exercise proper control over voluntary health plans, the House voted to inaugurate such a program in Virginia and requested the Committee on Medical Service to make constructive recommendations to the Council.

SPECIAL TUBERCULOSIS COMMITTEE: The President was directed to appoint a special committee on tuberculosis to work with the State Department of Health in devising and carrying out a program designed to reduce the number of persons with tuberculosis not known to local and State health authorities.

BLUE SHIELD PARTICIPATION: Calling attention to a similar action taken by AMA in June, the House adopted a resolution directing the Society to do all in its

power to secure participation by its members in Blue Shield plans and requested that Blue Shield Boards in the State meet at least once each year in joint session with the Society's Committee on Medical Service. Direct liaison between component societies and Blue Shield plans serving their areas was also encouraged in the interest of maintaining the best possible physician-plan relationship.

EXPRESSION OF MEDICAL OPINION: In an effort to establish proper procedure for the reporting of official Society actions, it was determined that only the President, Chairman of the Public Relations Committee and, in the case of an adopted and recorded policy, the Executive Secretary, may speak officially for The Medical Society of Virginia.

BED UTILIZATION AT BLUE RIDGE: Although it rejected at this time a resolution calling for the Society to approve the use of surplus beds at Blue Ridge Sanatorium for selected indigent and medically indigent patients afflicted with chronic chest conditions, the House did, however, recommend that the statutory regulations for admission only of suspected tuberculosis patients be changed to include the admission and treatment of chronic chest disorders among the indigent and medically indigent who can expect rehabilitation. It was believed the anti-tuberculosis program had not developed to the extent that definitive recommendations regarding the utilization of sometimes empty sanatorium beds could presently be made.

MILK SANITATION CONTROL: The House took notice of the fact that the last General Assembly referred the entire problem of milk sanitation control to a VALC committee for study and recommendations. It also learned that the State Department of Health and the State Department of Agriculture have been working to develop an effective cooperative agreement. It therefore adopted a resolution approving such an agreement to equitably divide responsibility for milk sanitation between the two departments.

AMERICAN ASSOCIATION OF BLOOD BANKS: A resolution was adopted urging all hospitals in the State to join the American Association of Blood Banks and consider the advisability of the Association's "transfusion accreditation services".

MEDICAL ASSISTANTS ORGANIZATIONS: Members of the Society were urged to encourage their employees to join the American Association of Medical Assistants, which has AMA approval, rather than the American Association of Doctors' Nurses. It was pointed out that the American Association of Medical Assistants does not constitute a threat to practical and professional nursing. It was also suggested that each county medical society assume sponsorship of a local chapter of the American Association of Medical Assistants.

Society Activities . . . .

Southwestern Virginia Medical Society.

The fall meeting of this Society was held in Roanoke on September 8th. The scientific program was Roentgen Therapy in Treatment of Cancer by Dr. James G. Snead, Roanoke; Management of Bleeding Esophageal Varices by Dr. Thomas G. Hardy, Jr., Roanoke; Current Concepts in Transfusion Therapy by Dr. Harry I. Johnson, Jr., Roanoke; and Practical Aspects of Common Athletic Injuries by Dr. J. William Hillman, professor of Orthopedics of Vanderbilt University, Nashville.

Dr. J. A. Soyars, Saltville, was elected president, succeeding Dr. W. S. Credle, Bristol. Dr. Marcellus A. Johnson, Roanoke, was elected vice president, and Dr. Tom Green, Bristol, secretary-treasurer.

The spring meeting of this Society will be held in Wytheville, April 20, 1961.

Medical Association of the Valley of Virgina.

The semi-annual meeting of this Association was held in Waynesboro on September 23rd. Dr. William Parson, University of Virginia, was the guest speaker, his subject being Some Recent Advances in Thyroid Diseases. Case reports were presented by Dr. Robert S. Boyd, Winchester, on Cholecystotomy, a Modern Reappraisal, and by Dr. Meade C. Edmunds, Clifton Forge, on Manifesting the Value of Operative Cholangiograms.

Dr. C. I. Sease, Harrisonburg, was elected president, succeeding Dr. D. E. Watkins, of Waynesboro. Drs. Thomas G. Bell, Staunton; James L. Davis, Waynesboro, and Brad Bennett, Winchester, were named vice-presidents; Dr. William B. Crawford, Woodstock, secretary, and Dr. Charles F. Gaylord, Staunton, treasurer.

American College of Physicians.

The Virginia Section of the College will hold its annual scientific session at the Charterhouse Motel in Alexandria on February 18, 1961. Anyone desiring to present a paper should send a brief abstract to Dr. James M. Moss, 3805 Florence Drive, Alexandria, Virginia.

American College of Chest Physicians.

The College will hold its annual interim session at the Shoreham Hotel, Washington, D. C., November 26th and 27th. An exceptional scientific program has been arranged, including symposia on Congenital Bronchopulmonary Disorders, The Role of Steroid Therapy in Chest Diseases, and Current Therapeutic Issues. A highlight of the program will be the Fireside Conferences on Sunday evening. In addition, there will be three round table luncheon discussions on Saturday and on Sunday. These will feature prominent speakers discussing various aspects of heart and lung diseases.

American Medical Association.

The 14th Clinical Meeting of the Association will be held in Washington, D. C., November 28-December 1. Considerable time has been spent to develop the finest scientific program possible. This will stress the theme "New Developments in Old Diseases and Old Developments in New Diseases". There will be presentations of both sides of a question where differences exist concerning the management of a disease or medical condition. Some of the topics to be covered will be gynecology, hematology, obstetrics, coronary disease, pathology nodules, psychiatry, artificial kidneys, orthopedic surgery, ophthalmology, diarrhea, antibiotics and tranquilizers. The scientific sessions will be held in the National Guard Armory and will be so arranged that three sections will take place simultaneously in both morning and afternoon.

There will be a series of six one-hour television presentations from Georgetown University Hospital, featuring dermatology, pediatrics, emergency treatment of major injuries, and newer methods in surgical treatment of peptic ulcer, orthopedics and pathology. Three scientific breakfasts will be held on both Tuesday and Wednesday at the Statler Hotel, highlighting the theme "To Do or Not to Do" and "Problems of Management" in particular diseases of types of cases.

News Notes....

And the Memory Lingers On!

From all reports, the annual meeting of The Medical Society of Virginia, held at Virginia Beach, October 9-12, was a complete success. Even the weatherman cooperated and after a hard rain all day on Saturday, the sun came forth in all its glory on the 9th and continued to shine for the entire meeting.

There was a registered attendance of 1070, including 645 doctors, 266 ladies, and 159 exhibitors. There were 56 technical exhibits and 21 scientific exhibits housed in the Convention Center and attendance seemed to be good at all times. About the only complaint was that the floor was too hard and there was a need for "foot doctors".

Some of the important actions of the House of Delegates are reported in this issue of Current Currents and the minutes of the Council and House will be published in the December issue of the Monthly.

Dr. Guy W. Horsley, Richmond, succeeded Dr. Allen Barker, Roanoke, as president, and Dr. Russell V. Buxton, Newport News, was named president-elect. Vice-presidents elected are: Dr. Mallory S. Andrews, Norfolk; Dr. W. C. Elliott, Lebanon; and Dr. Harold W. Miller, Woodstock. One new councilor, Dr. James G. Willis, Fredericksburg, was named, the others holding over being Drs. Paul Hogg, Newport News; K. K. Wallace, Norfolk; Thomas W. Murrell, Jr., Richmond; Fletcher J. Wright, Jr., Petersburg; William N. Thompson, Stuart; Alexander McCausland, Roanoke; Dennis P. McCarty, Front Royal; W. Fredric Delp, Pulaski; and Richard E. Palmer, Alexandria. Dr. Fletcher J. Wright, Jr., was elected as Speaker of the House, succeeding Dr. John T. Hundley. Dr. Kinloch Nelson was named vice Speaker, succeeding Dr. Wright. Dr. Vincent W. Archer was re-elected as Delegate to the American Medical Association, and Dr. Hundley was his alternate. Drs. W. Linwood Ball and Allen Barker, hold over as delegates, and Drs. W. Callier Salley and Russell Buxton as alternates.

The 1961 annual meeting of the Society will be held in Richmond, October 8-11.

New Members.

Since the list published in the October issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Robert James Brennan, M.D., Annandale
Francis J. Carbonara, M.D., Hampton
Charles Richard Chamberlain, Jr., M.D., Charlottesville
William Alvin Davis, M.D., Dante
Frank Humbert Dudley, M.D., Rocky Mount
Raul R. Garcia, M.D., Vienna
William Joseph Hockett, M.D., Hampton
Bernard Francis Jamison, M.D., Newport News
Rolf Alfred Koehler, M.D., Fairfax
Cooper Dave Kunkel, M.D., Clarksville
Willard Epperly Lee, Jr., M.D., Roanoke
Leonard Charles Lund, M.D., Petersburg
Frances Wha Shik Min, M.D., McLean
Wallace Clay Nunley, M.D., Clifton Forge
Gerado B. Palanco, M.D., Danville
Franklin Charles Wilson, M.D., Hampton

Dr. Donald Lurton Arey

Has been elected vice mayor for the City of Danville.

Dr. A. Ray Dawson,

Richmond, is the new president-elect of the Virginia Rehabilitation Association.

Dr. Fred T. Renick,

Martinsville, has recently been elected vice mayor of this City.

Dr. Benedict Nagler,

Superintendent of the Lynchburg Training School and Hospital, has been appointed by the National Academy of Sciences, National Research Council, to their committee on Veteran's Medical Problems.

Dr. Nagler has also been appointed to the board of trustees of the newly-founded Woodrow Wilson Rehabilitation Center Foundation at Fishersville.

Dr. J. D. Hagood,

Clover, has been named by the Virginia Advisory Legislative Council as chairman of a committee to make a new study of non-profit hospitalization and medical service plans in Virginia. Dr. John P. Lynch, Richmond, has been appointed as a member of the committee.

Dr. David J. Crawford

Has recently been elected to a three-year term on the Board of Health of the City of Waynesboro.

Van Meter Prize Award.

The American Goiter Association again offers the Van Meter Prize Award of $300.00 to the essayist submitting the best manuscript of original and unpublished work concerning "Goiter—especially its basic cause". The studies so submitted may relate to any aspect of the thyroid gland in all of its functions in health and disease.

The competing essays may cover either clinical or research investigations, should not exceed 3,000 words in length and must be presented in English. Duplicate typewritten copies, double spaced, should be sent to the Secretary, John C. McClintock, M.D., 702 Madison Avenue, Albany 8, New York, not later than January 1, 1961.

Dr. Louis H. Calisch

Has been appointed Clinician-in-charge of Danville's new Treatment Clinic for Alcoholics. The Clinic was opened on September 9th and is being sponsored jointly by the Danville and State Health Departments.

Dr. Robert A. W. Latimer,

Manassas, has been named disaster chairman in Virginia of The Flying Physicians' Association.

Dr. Louis J. Richman,

Newport News, was wounded when shot by one of two gunmen who attempted to rob him as he sat in his parked car inside his garage. It was the second time in a little over two years that he had been injured by bandits who attempted to rob him.

Dr. Howard L. Mitchell,

Lexington, has recently returned from a three-month flight around the world. He reports a most interesting trip though found no country as progressive nor with the conveniences we have in the United States.

American Society of Diagnostic Radiology.

Applications for charter membership in this Society are now being received. Membership is open to general practitioners and internists who do or may desire to do some types of Diagnostic Radiology in their offices. For further information, write Dr. Louis Shattuck Baer, 411 Primrose Road, Burlingame, California.

Practice for Sale

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Obituaries . . . .

Dr. William Branch Porter,

Professor Emeritus at the Medical College of Virginia, died October 4th after a long illness. He was seventy-two years of age and a graduate of the College in 1911. After serving his internship, Dr. Porter returned to the College where he became associate in medicine and assistant professor of therapeutics and pharmacology. He was commissioned a major in the United States Army Medical Corps and served with Base Hospital 45 during the First World War. Beginning in 1922, he served as physician in chief at Lewis-Gale Hospital in Roanoke but returned to the Medical College of Virginia in 1926 as a fellow in medicine. Dr. Porter served for twenty-nine years as chairman of the department of medicine, retiring in 1956 on account of illness. He was made Professor Emeritus and the William Branch Porter Professorship of Medicine was established. His former residents formed in his honor the William Branch Porter Society and present each year an award to the outstanding senior graduate in medicine.

Dr. Porter was a fellow of the Association of American Physicians, a past president of the American Clinical and Climatological Association, former vice chairman of the American Board of Internal Medicine, past chairman of the medical section of the Southern Medical Association, and past president of the Richmond Academy of Medicine. He had been

a member of The Medical Society of Virginia since 1914. Dr. Porter was also a member of the Society of the Cincinnati, the Society of Colonial Wars, and the Sons of the Revolution.

After Dr. Porter became a patient at the Hospital of the Medical College of Virginia, his room on the 16th floor was a gathering place for his friends, students and nurses. He "occupied an unusual niche in the hearts of students, faculty and friends alike."

Dr. Ramon David Garcin,

Oldest living graduate of the Medical College of Virginia, died at his home in Richmond on September 18th. He was ninety-three years of age and graduated from the College in 1885. Dr. Garcin was personal physician to several Virginia governors. He gave more than sixty years of free medical service to the Masonic Home and was medical director of the Southern Baptist Mission Board for fifteen years. Dr. Garcin was prominent in civic affairs, having served as a member of the City School Board for twenty-one years and chairman of the City Library Board for twelve years.

Dr. Garcin was president of the Richmond Academy of Medicine in 1907. He had been a member of The Medical Society of Virginia for seventy-one years.

His son is Dr. Ramon D. Garcin, Jr., of Richmond. A daughter survives also.

Dr. Robertson

The Roanoke Academy of Medicine records with sorrow the death of one of its prominent and beloved members. On May 4, 1960, Dr. John Churchill Robertson of Salem died in a local hospital.

He was born in Lynchburg, Virginia, June 3, 1897, and when he was six years of age his family moved to Salem.

He received his pre-medical education at Roanoke College and V.M.I. and graduated from the Medical College of Virginia in 1923. After interning at the Boston City Hospital he practiced medicine in Salem for two years and during that period he became especially interested in diseases of the chest. In 1925 he trained under Dr. Trudeau at Saranac Lake. He then returned to Salem, became associated with Dr. Everett Watson at The Mt. Regis Tubercular Sanatorium. Following this association Dr. Robertson entered the Philadelphia General Hospital where he became Resident Physician. He also did post graduate work at The Bellevue Hospital in New York City.

In 1932 he returned to Virginia and opened his office in the Medical Arts Building in Roanoke, specializing in diseases of the chest.

He served as chest consultant to the Veterans Hospital and the Veterans Regional Office until the time he was forced to retire on account of his failing health. Also for many years he served as physician to the Virginia Baptist Children's Home.

He is survived by his wife and their two daughters. To them and the other members of his family we extend our deepest sympathy.

This Committee requests that these resolutions be incorporated in the minutes of the Roanoke Academy of Medicine and that copies be sent to Dr. Robertson's family and to the Virginia Medical Monthly for publication.

Paul Davis
John Jofko
Mortimer H. Williams, *Chairman*

Dr. Spencer

In a memorial ceremony at the regular meeting on June 6, 1960, the Roanoke Academy of Medicine expressed its sorrow and regret upon the loss of Dr. J. M. Spencer.

Dr. Spencer had been ill for seven months prior to his death due to arteriosclerotic heart disease with congestive failure, on May 6, 1960.

Dr. Spencer was born in Wellston, Ohio, on August 18, 1890, graduated from the Medical College of Virginia in 1916, and engaged in post-graduate work at the Chicago Eye, Ear, and Throat Hospital, prior to entering practice in Lignite, Va.

Dr. Spencer moved to Roanoke in 1920 where he practiced general medicine until his recent illness.

Dr. Spencer's life was characterized by devotion to patients and friends, and he was especially beloved by the large number of patients he served.

The Roanoke Academy of Medicine feels keenly in the loss of this devoted physician.

William H. Kaufman, M.D., *President*

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1. Shopleigh, J. B.: Ferrous Fumorote, A Clinicol Triol of A New Iron Compound, Am. Pract. Dig. Treot.; March, 1959.
2. Feldmon, Horold S.: Ferrous Fumorote in the Treatment of Iron Deficiency Anemia, Va. Med. Monthly, Vol. 87, April, 1960.
3. Loncet (editoriol) 2: 923, 1953.
4. Quort. J. Med. 22:309, 1953 ond Blood 7:671, 1952.

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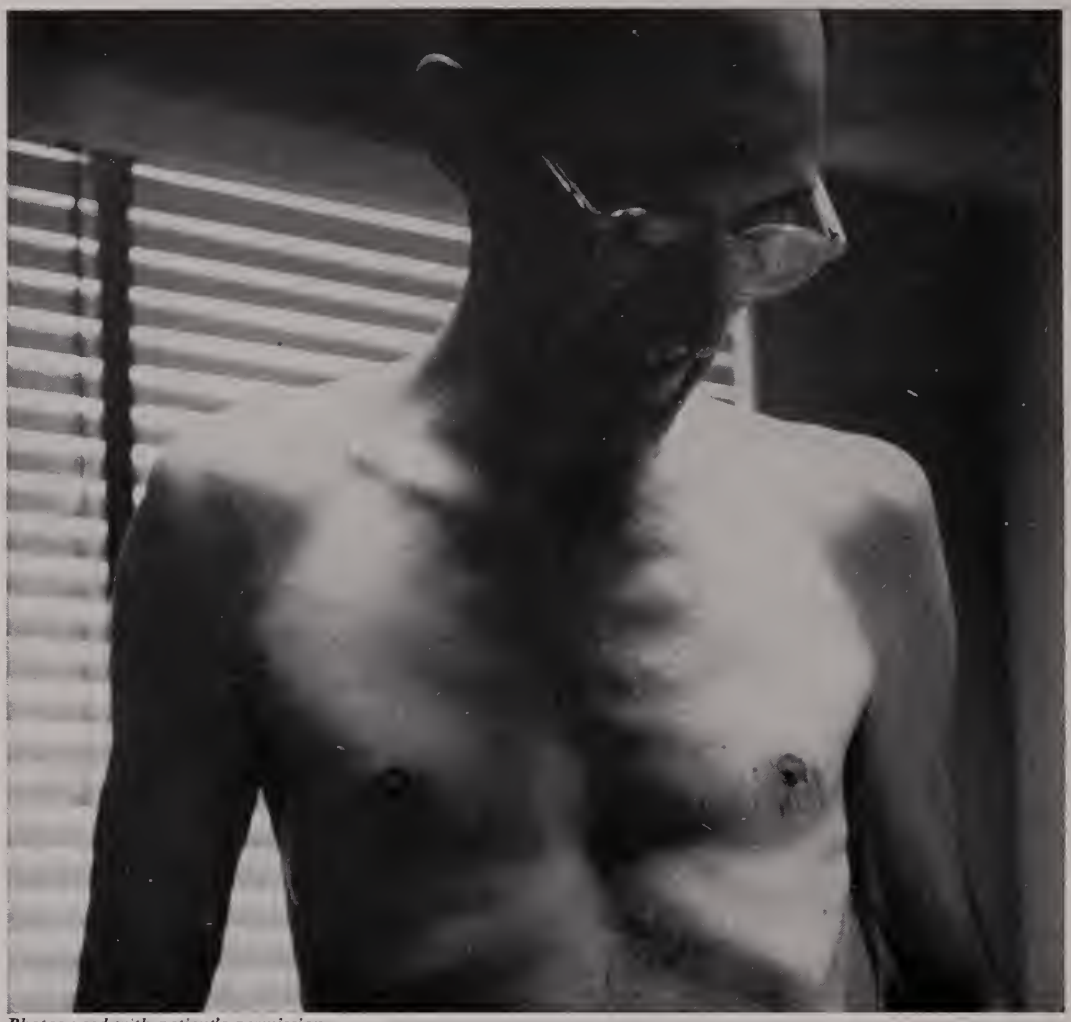

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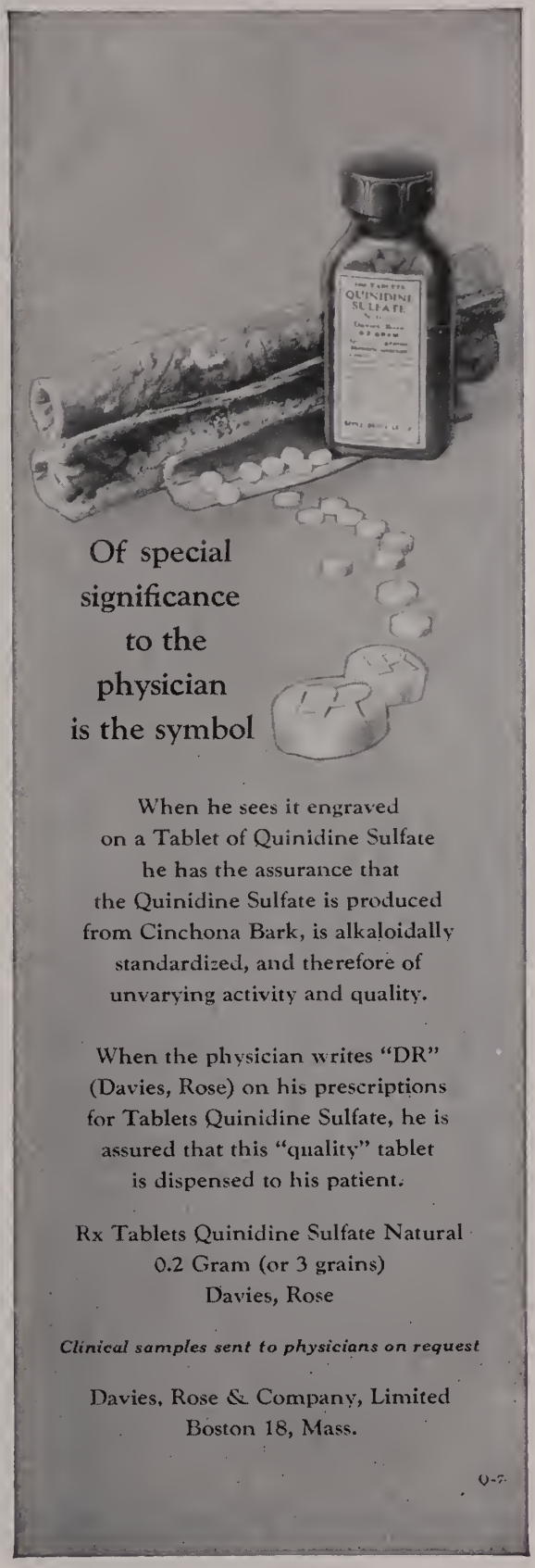

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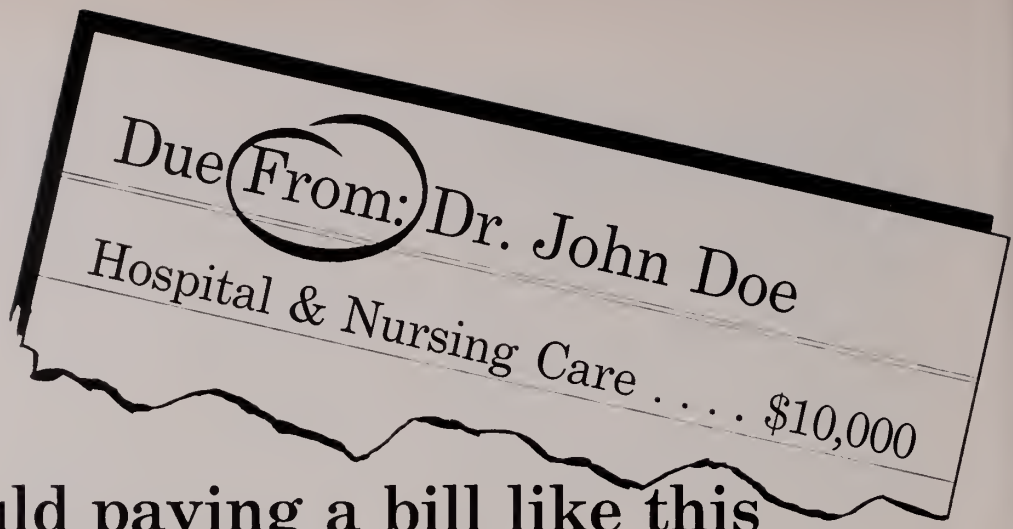

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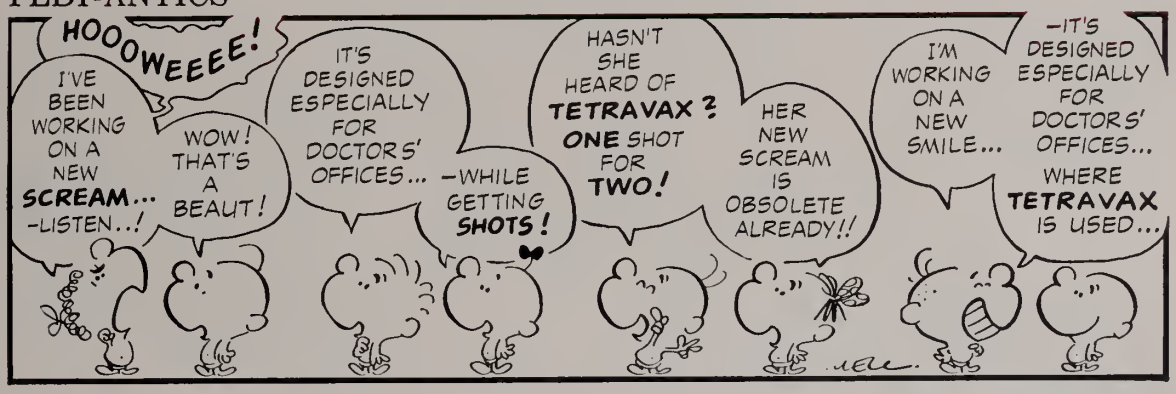

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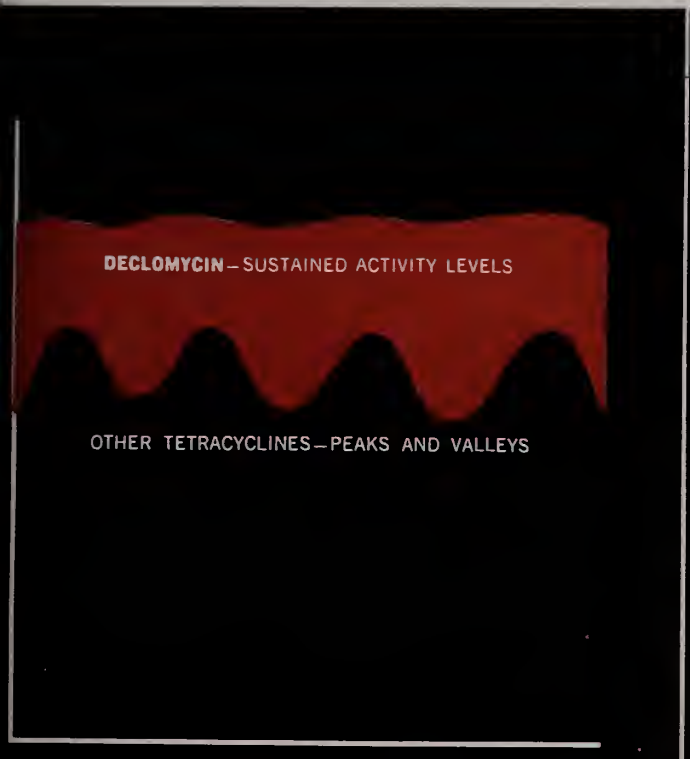

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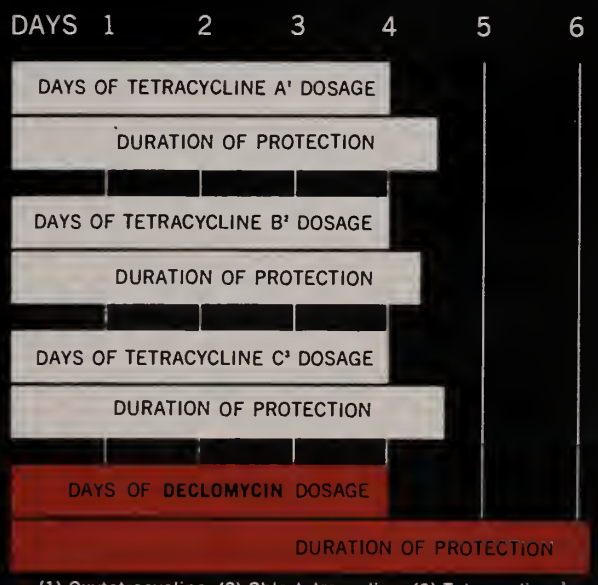

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PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. **Dosage:** 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into 4 doses.
SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored), bottles of 2 and 16 fl. oz. **Dosage:** 3 to 6 mg. per pound body weight per day—divided into 4 doses.

PRECAUTIONS: As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under observation.

for the added measure of protection in clinical practice

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Each MYADEC Capsule contains: VITAMINS: Vitamin B_{12} crystalline—5 mcg.; Vitamin B_2 (riboflavin)—10 mg.; Vitamin B_6 (pyridoxine hydrochloride)—2 mg.; Vitamin B_1 mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; Vitamin E (d-alpha-tocopheryl acetate concentrate)—5 I.U. MINERALS: (as inorganic salts) Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. Bottles of 30, 100 and 250.

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BOOSTS THE EFFECTIVENESS OF CODEINE: Soma Compound boosts the effectiveness of codeine. Therefore, only ¼ grain of codeine phosphate is supplied to relieve the more severe pain that usually requires ½ grain.

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**References available on request.*

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now–for more comprehensive control of

'pain & spasm'

INDICATIONS

HEAD: temporomandibular muscle spasm • NECK: acute torticollis, osteoarthritis of cervical spine with spasm of cervical muscles, whiplash injury • TRUNK AND CHEST: costochondritis, intercostal myositis, xiphodynia • BACK: acute and chronic lumbar strains and sprains, acute low back pain (unspecified), acute lumbar arthritis and traumatic injury, compression fracture, herniated intervertebral disc, post-disc syndrome, strained muscle(s) • EXTREMITIES: acute hip injury with muscle spasm, ankle sprain, arthritis (as of foot or knee), blow to shin followed by muscle spasm, bursitis, spasm or strain of muscle or muscle group, old fracture with recurrent spasm, Pellegrini-Stieda disease, tenosynovitis with associated pain and spasm.

-pain due to or associated with -spasm of skeletal muscle

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[1]Clinical reports in files of A. H. Robins Co., Inc., from: J. Allen, Madison, Wisc., B. Billow, New York, N. Y., B. Decker, Richmond, Va., C. Freeman, Jr., Augusta, Ga., R. B. Gordon, New York, N. Y., J. E. Holmblad, Schenectady, N. Y., L. Levy, New York, N. Y., N. LoBue, Chicago Heights, Ill., H. Nachman, Richmond, Va., A. Poindexter, Los Angeles, Cal., E. Rogers, Brooklyn, N. Y., K. H. Strong, Fairfield, Ia.

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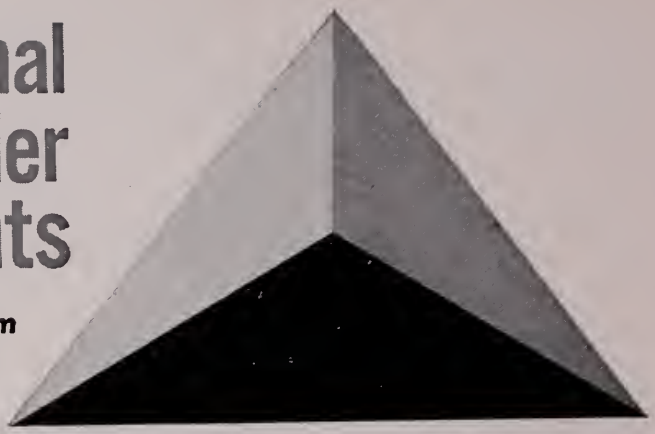

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Actual case summary from the files of Bristol Laboratories' Medical Department

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250 mg. q.i.d. – 5 days

B.G. 9-year-old, white male. First seen Aug. 11, 1959 with acute tonsillitis. Illness of 3 days' duration. Beta hemolytic streptococcus extremely sensitive to SYNCILLIN cultured from the throat. Patient started on SYNCILLIN – 250 mg. q.i.d. After 5 days, the infection appeared cured and the antibiotic was discontinued. No subjective or objective evidence of side reactions.

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hastens recovery

Geigy

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Because of its efficacy as an antidepressant, coupled with its simplicity of usage, Tofrānil is admirably adapted to use in the home or office in these milder "depression-complicated" cases.

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Tofrānil®, brand of imipramine hydrochloride, tablets of 25 mg. Ampuls for intramuscular administration, 25 mg. in 2 cc. of solution.

Geigy, Ardsley, New York

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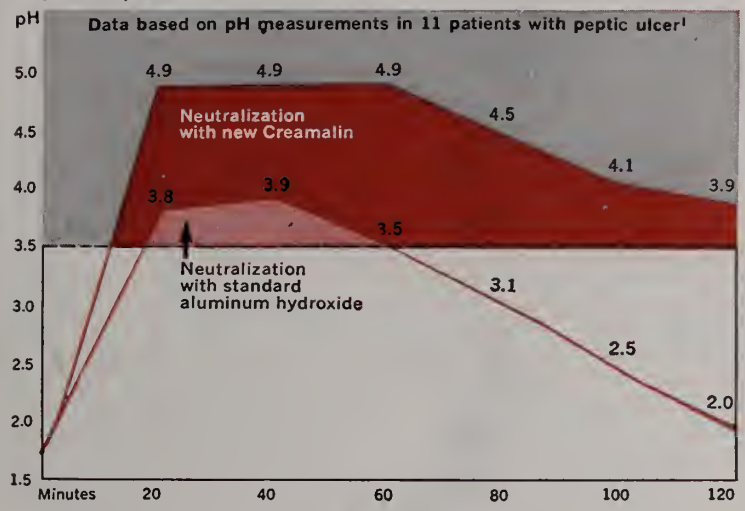
At the site of peptic ulcer

Following determination of basal secretion, intragastric pH was continuously determined by means of frequent readings over a two-hour period.



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1. Data in the files of the Department of Medical Research, Winthrop Laboratories. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: J. Am. Pharm. A. (Scient. Ed.) 48:384, July, 1959.

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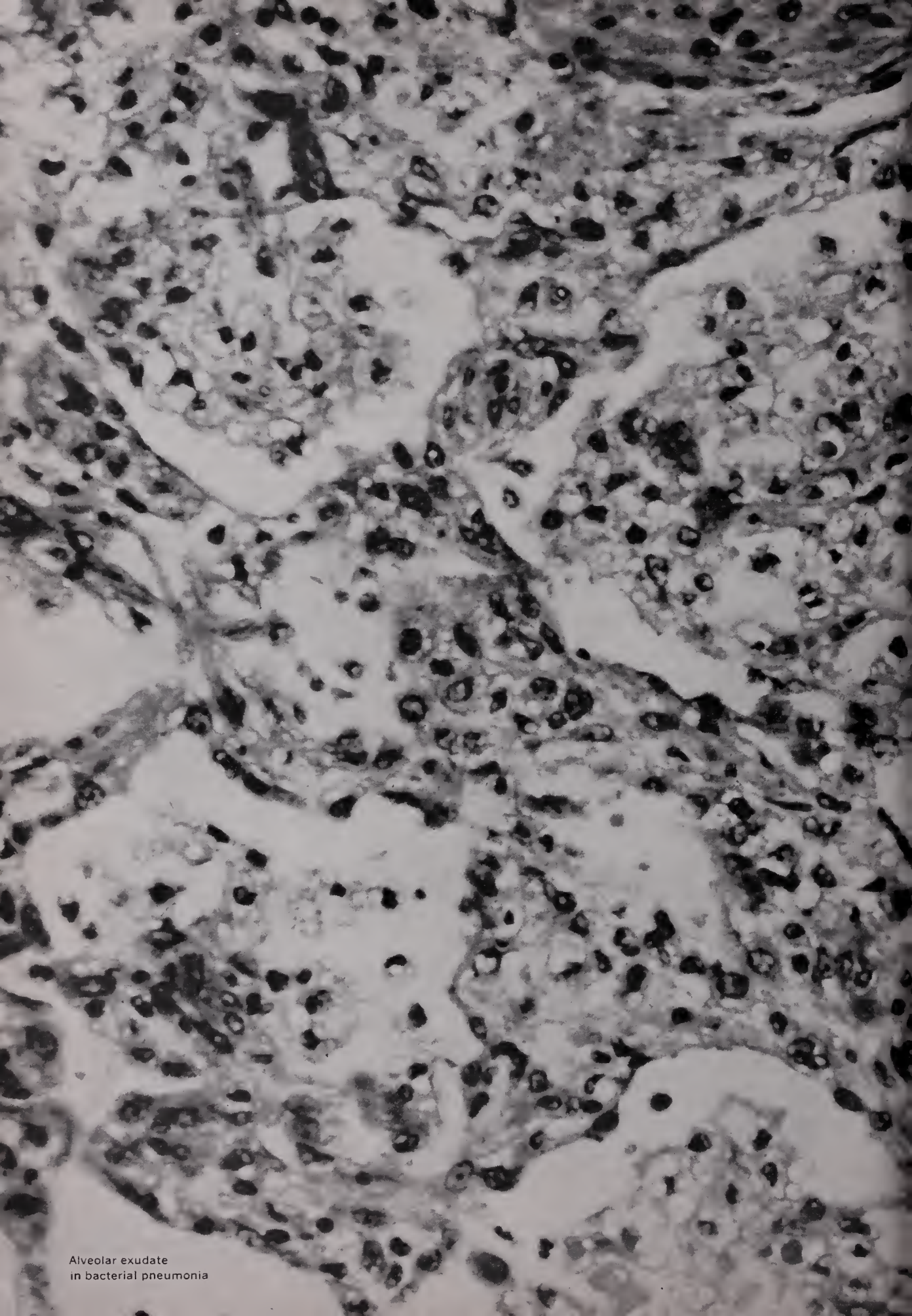
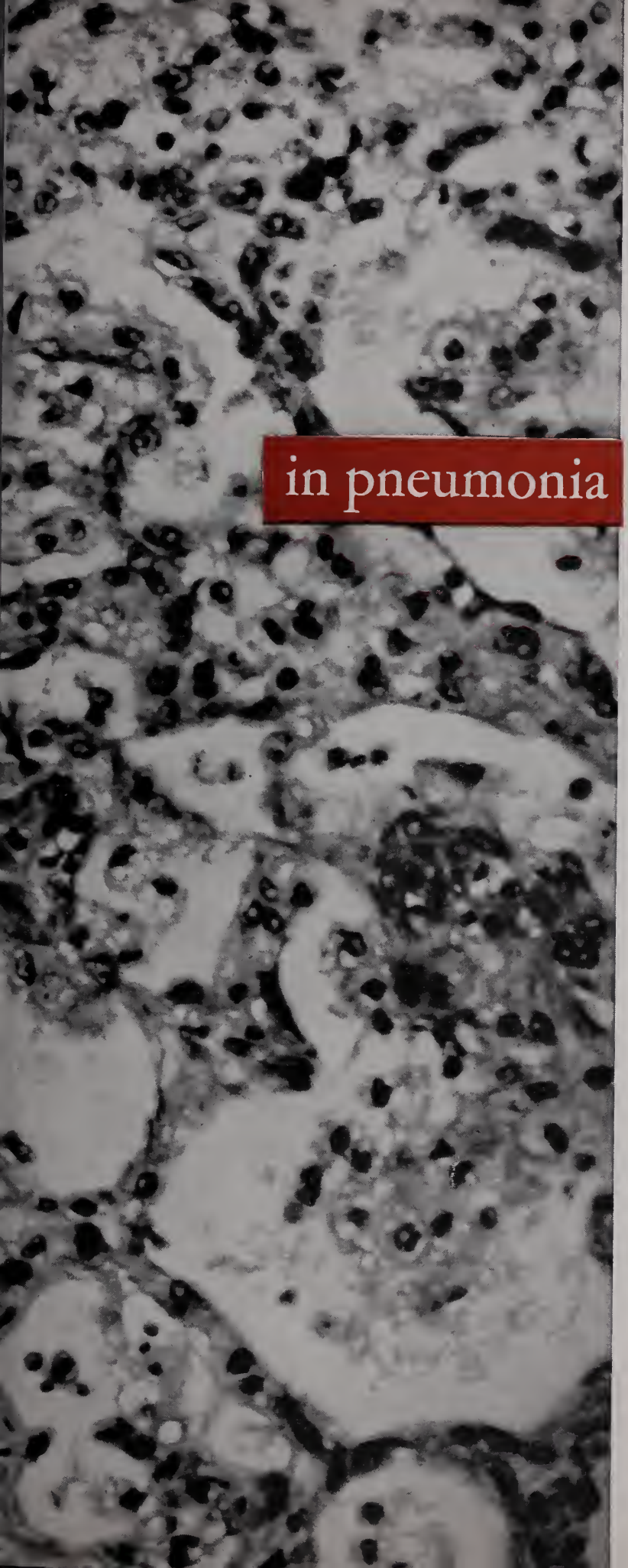
New York 18, N. Y.

for peptic ulcer ■ gastritis ■ gastric hyperacidity



Alveolar exudate
in bacterial pneumonia



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Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

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Source: Harrison, T. R., *et al.*: Principles of Internal Medicine, ed. 3, New York, McGraw-Hill Book Co., 1958, p. 620.

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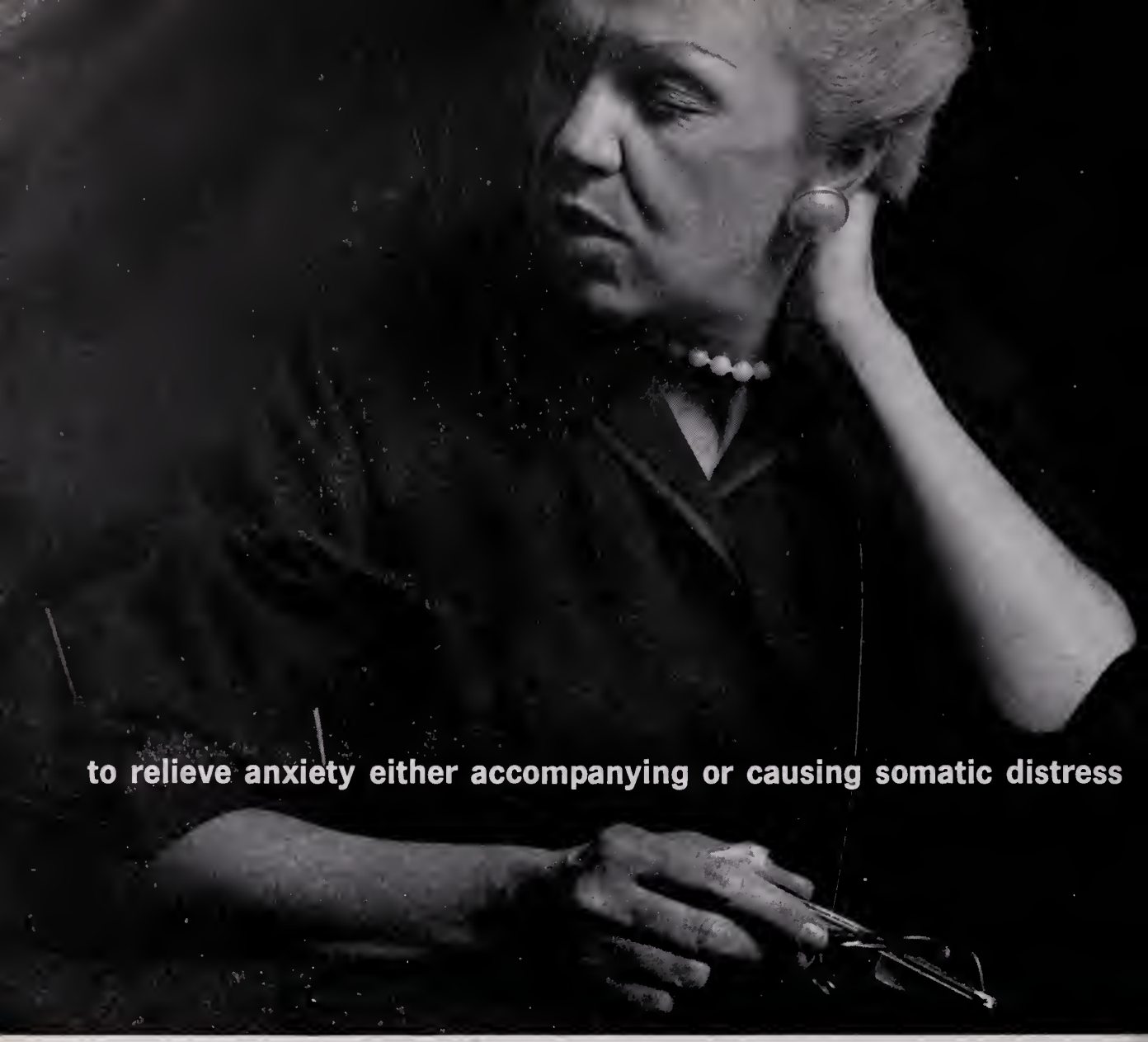

advantages you can expect to see with Stelazine®

brand of trifluoperazine

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N.B.: For further information on dosage, side effects, cautions and contraindications, see available comprehensive literature, *Physicians' Desk Reference,* or your S.K.F. representative. Full information is also on file with your pharmacist.

1. Marx, F.J., in *Trifluoperazine: Further Clinical and Laboratory Studies*, Philadelphia, Lea & Febiger, 1959, p. 89.
2. Winkelman, N.W., Jr.: *ibid.*, p. 78.

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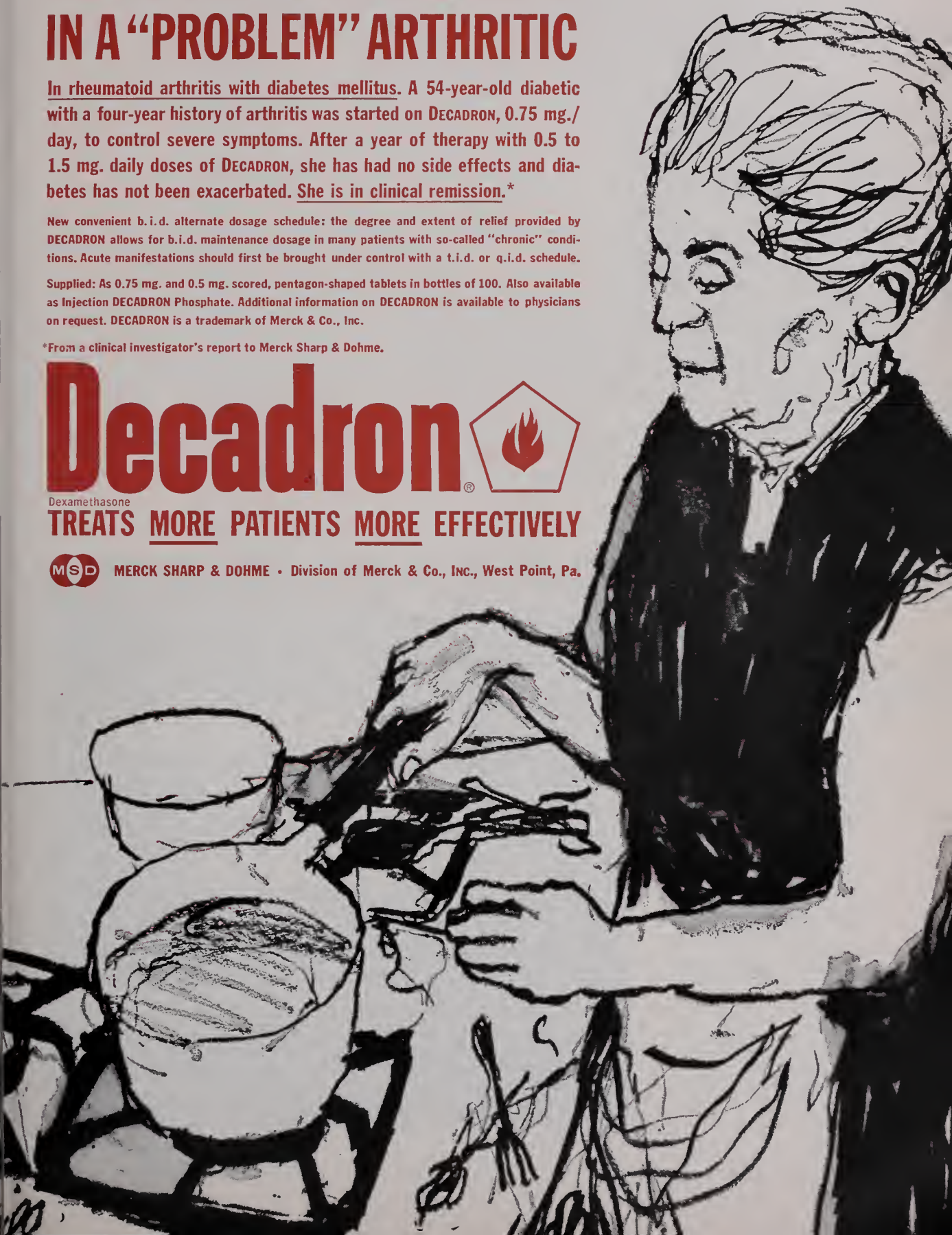

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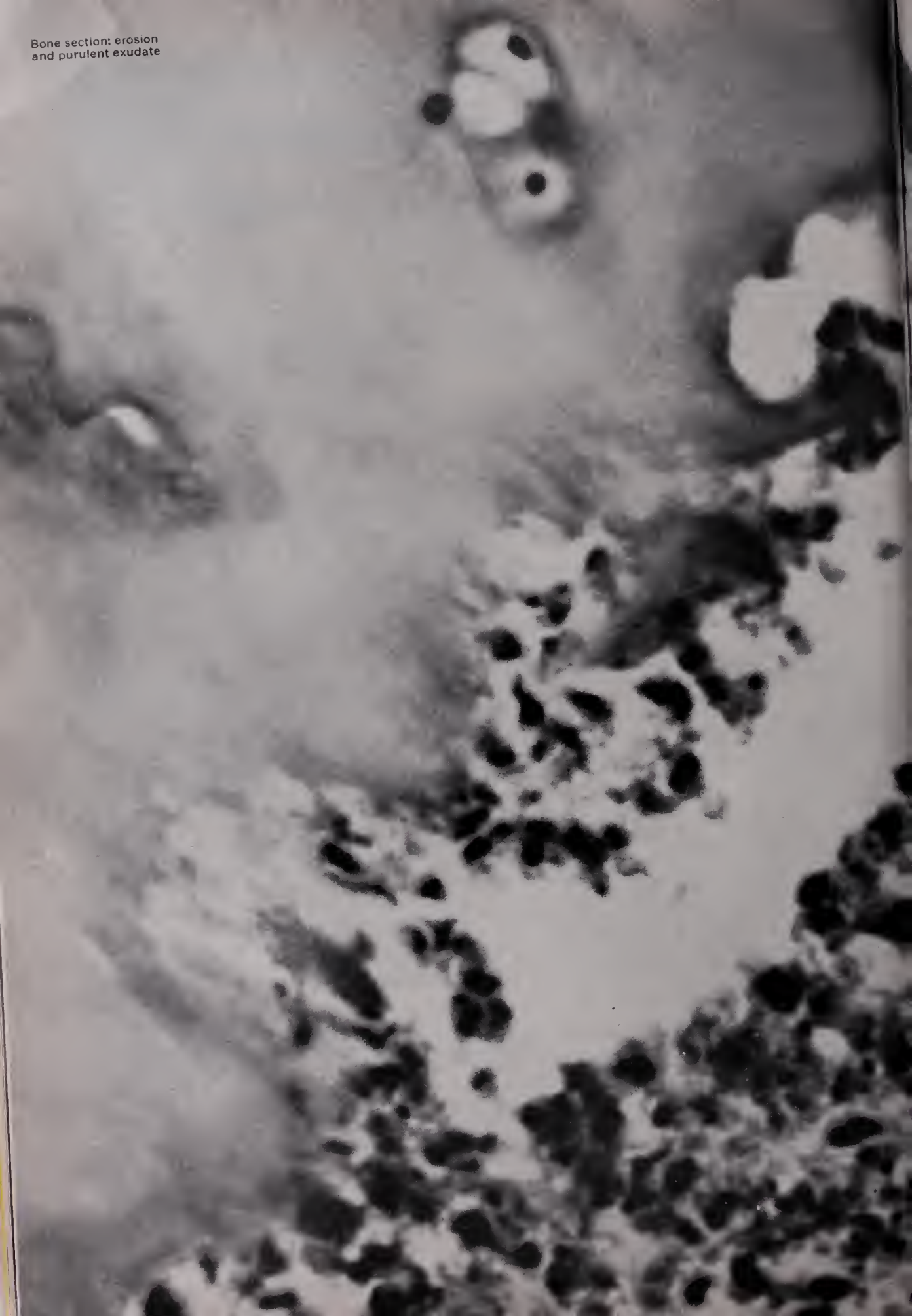

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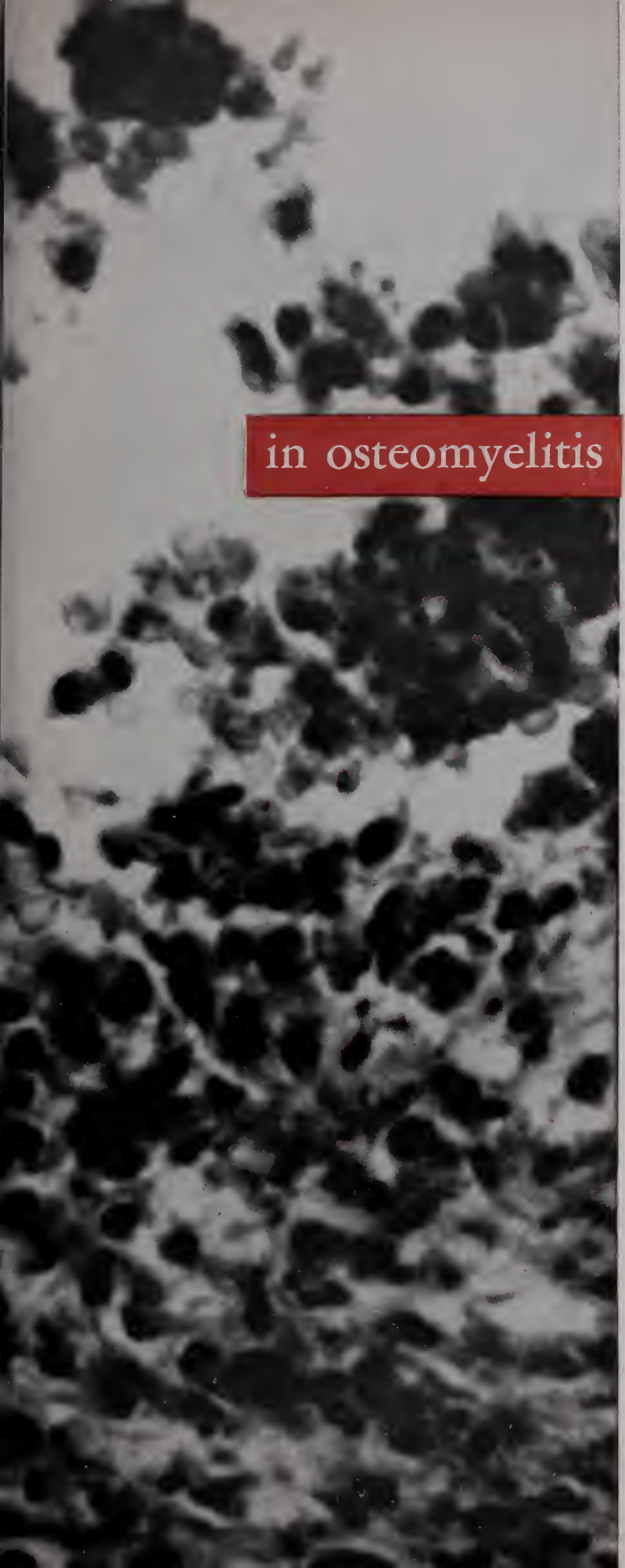

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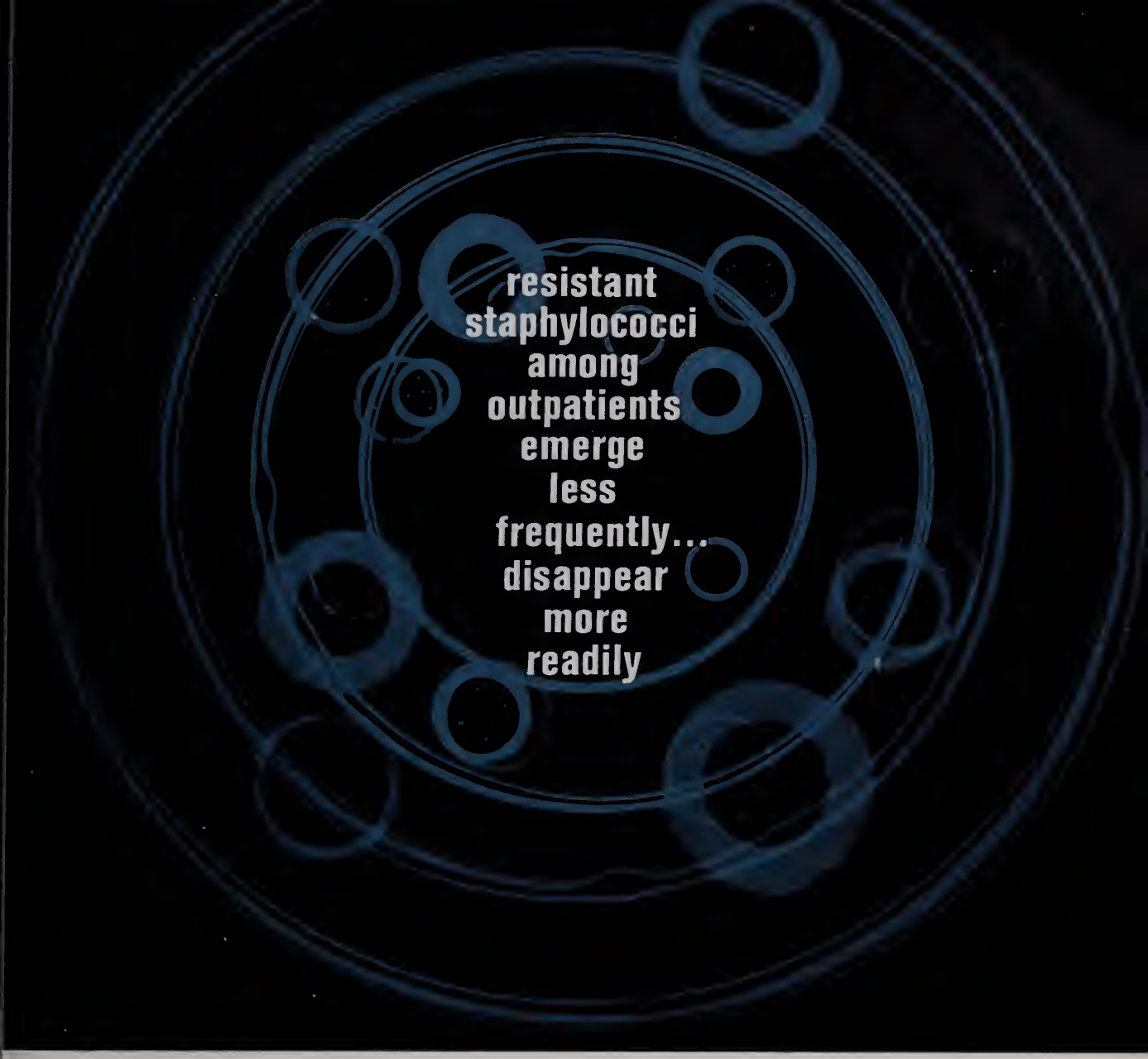

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*Adapted from Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* 173:475, 1960.

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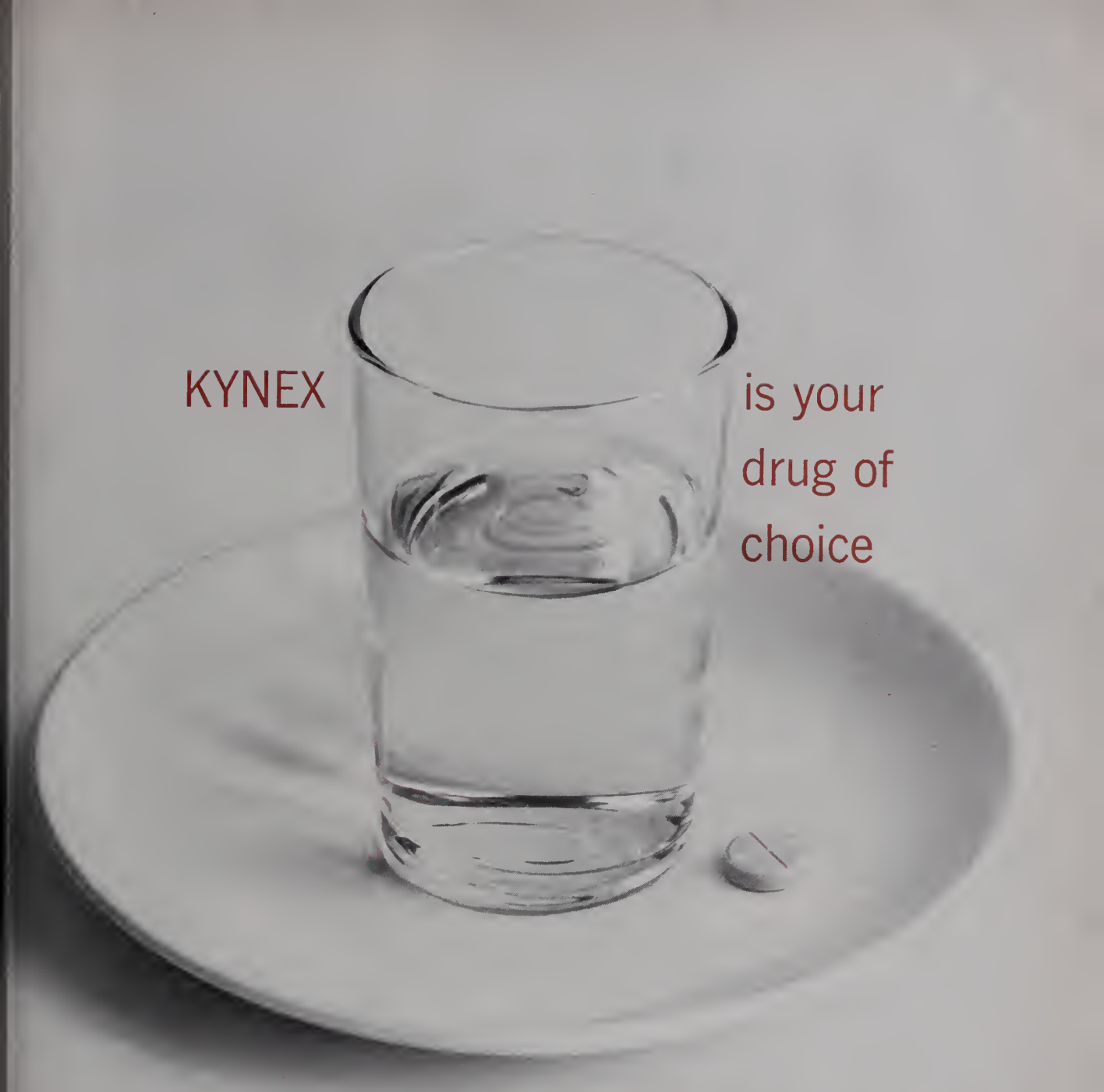

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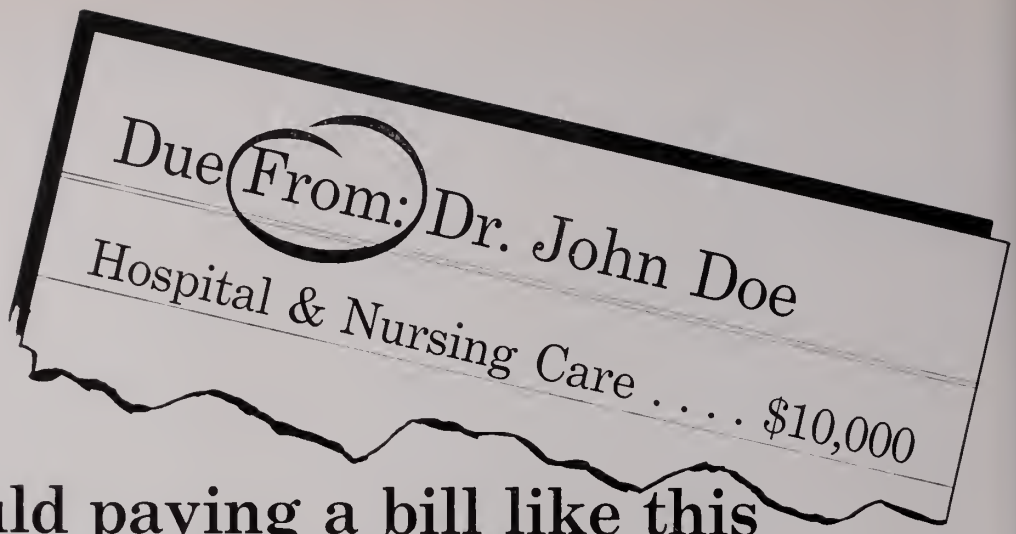

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1. Barclay, R. L.: J.A.M.A. 174:474, Oct. 1, 1960

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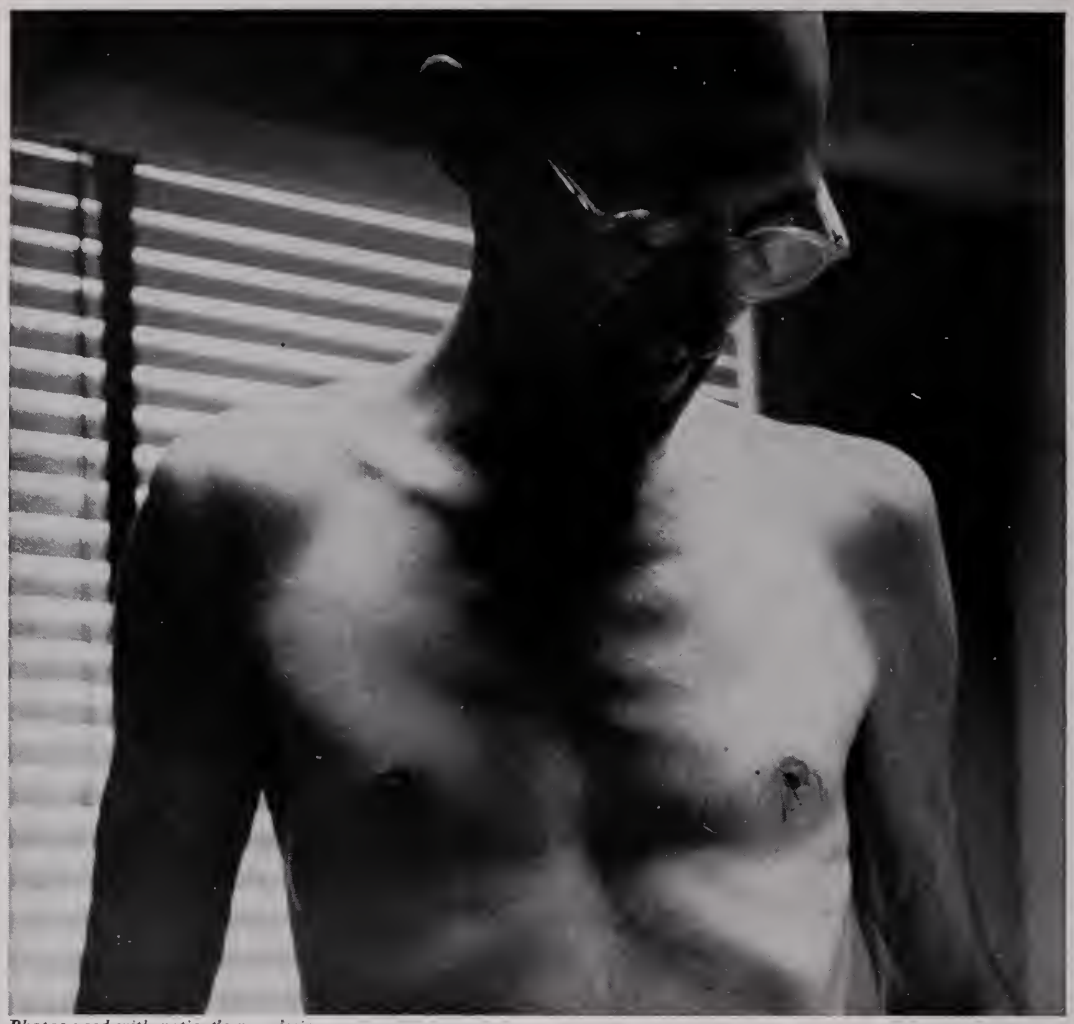

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*Reports to Department of Clinical Investigation, Parke, Davis & Company, 1958 and 1959.

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Source: Harrison, T. R., *et al.*: Principles of Internal Medicine, ed. 3, New York, McGraw-Hill Book Co., 1958, p. 620.

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REFERENCES:

1. Scherbel, A. L.; Schuchter, S. L., and Harrison, J. W.: Cleveland Clin. Quart. 24:98, April, 1957.
2. Waine, Hans: Arthritis, rheumatoid, in Conn, H. F.: Current Therapy 1959, Philadelphia, W. B. Saunders Co., 1959, p. 565.

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References: Drugs of Choice: W. Modell, M.D., 1959; Pg. 131, 132.

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References: Drugs, Their Nature, Action and Use; H. Beckman, M.D., 1958; Pg. 502, 504, 505.

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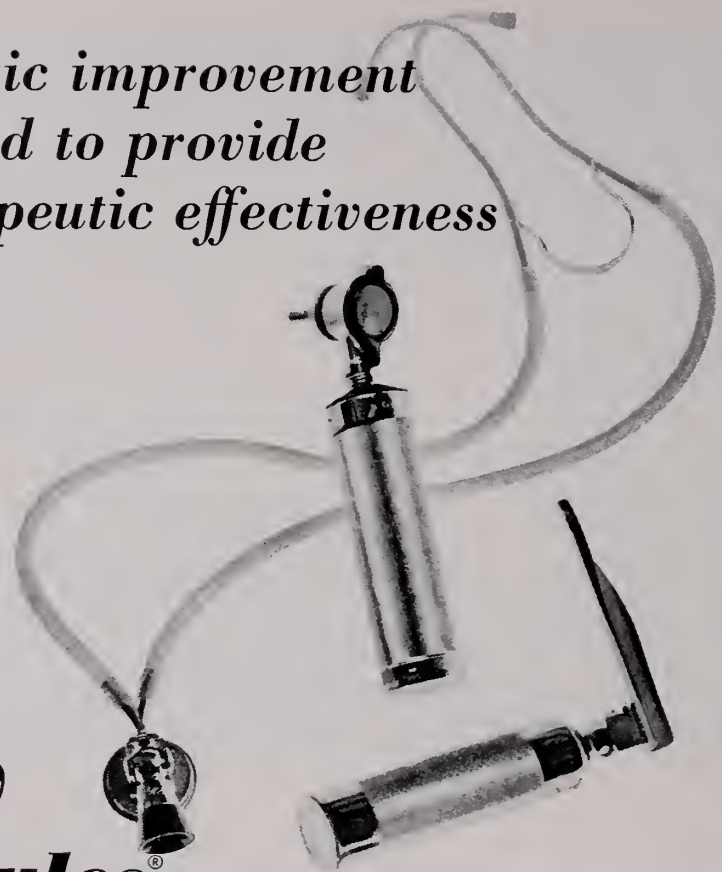

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1. Stephens, V. C., *et al.*: J. Am. Pharm. A. (Scient. Ed.), *48*:620, 1959.
2. Salitsky, S., *et al.*: Antibiotics Annual, p. 893, 1959-1960.
3. Reichelderfer, T. E., *et al.*: Antibiotics Annual, p. 899, 1959-1960.
4. Kuder, H. V.: Clin. Pharmacol. & Therap., in press.

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The Virginia
MEDICAL
MONTHY

December, 1960
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Guest Editorial . . . .

The Evolution of the Ophthalmologist

THE MODERN OPHTHALMOLOGIST emerged in the first half of the nineteenth century largely as the result of the impact of the life and work of Albrecht von Graefe. It was he who brought the specialty in Germany to its present status as a distinct discipline of medicine. Previous to his influence there had been many great ophthalmic surgeons, but ophthalmology had been a subordinate section of surgery. This is comprehensible when one realizes that the care of the eyes was largely surgical and optical until the first practical ophthalmoscope was devised by Hermann von Helmholtz in 1852, thus as von Graefe said, "opening a new world" to the ophthalmologist. This innovation clarified many difficult problems, introduced many new ones, and initiated study of the relationship of ophthalmology to general medicine and to neurology. These trends are exemplified in the application of ophthalmoscopy to medical diseased by Sir Clifford Albutt (1868) and to neurology by Hughlings Jackson (1865).

Thus the ophthalmologist began as a surgeon-oculist and later developed into a medical- and neurological-oculist. Ocular surgery has continued to develop technically to the present, but in most ophthalmologists' hands, it has been relegated to an equal partnership with the medical and optical phases of the specialty. The marriage of these three technologies has secured for ophthalmology a sound basis for the growth of knowledge of the ocular structures in health and disease. From there, interest in vision more recently has extended the "ophthalmic mind" to the far reaches of the theories of vision and perception, thus to a philosophy of man and "a conception of disease" that leads him along safe paths to carefully regulate, modify, and improve his technology. In short the concept of "seeing man" is superseding the older views of seeing eye or seeing brain.

With the brilliant work of those nineteenth century giants, von Graefe, Sir William Bowman, and Cornelius Donders, vast stores of data regarding eye diseases and disorders accrued, and with refinements and additions by many later workers, ophthalmology rapidly progressed to an effective and largely successful practice. With this development came public respect and approval. In return, the ophthalmologist logically and fairly assumed his responsibility of interest in the protection of public welfare so far as the eyes and vision are concerned.

The first function, then of the Ophthalmologist is as a physician devoting his medical knowledge and skill to understand and implement the best methods of preventive and early curative ophthalmic medicine.

Examples of this function would include school vision testing, automobile driver and air pilot vision testing, industrial eye safety programs, setting standards of vision for various occupations, surveys to discover glaucoma and other eye diseases in the general public, and promoting public vigilance against newly discovered eye hazards such as old fluorescent tubes, radiation effects, wrap-around windshield, etc. Parenthetically, as regards the school vision tests, the ophthalmologist evaluates the reasons for failures, and corrects both the visual defects and treats any incidental ocular diseases as early as possible to prevent the loss of visual function or efficiency. It is therefore the ophthalmologist's intention to see these children as promptly as possible. The generalist or pediatrician referring the child to an opthalmologist gains assurance of proper optical measurement and correction as well as any essential medical eye care.

The practice of the ophthalmologist is dual in character: first as a family oculist in which capacity his service is sought directly by the patient and his family; and second as a specialist-consultant lending his special skills and techniques to complement the medical services of the patient's generalist or pediatrician.

Thus the second function of the ophthalmologist is as a cooperative medical consultant giving specialized ophthalmic care and advice regarding ocular and visual complaints and general diseases that have ocular manifestations.

The years of training in a good ophthalmologist residency divide the resident's attention equitably between the basic medical, optical and surgical aspects of the specialty and the applied practice of techniques under careful supervision. The conceptual side is likewise emphasized along with historical orientation. Such training produces much more than "safe ophthalmologists"; it results in individualists seeking to synthesize their newly acquired technology into their concept of good medicine and into the practical side of practice. As an individual, the ophthalmologist experiences the opportunity to view and express his professional calling uniquely. This may manifest itself simply in the collection and reporting of unusual clinical case history data, or in research to which he introduces those attributes or ideas that are peculiar to him. Possibly he contributes a new view to an old idea, or develops new applied techniques in which the singular methods of his operation demand new ideas or tools.

This characterizes the third function of the ophthalmologist at the boundaries of his knowledge contributing to its increase and refinement and to its clarification and dissemination in books and articles.

The ophthalmologist, at his best, always the physician while the technically oriented specialist, guardian of ocular health and efficiency, colleague and compatriot with the family physician, and investigator of vision and its instrumentalities in health and disease, emerges as a multifaceted medical man intrigued with but not subordinated by his technology, and always focused on the ocular and visual needs of his patient. Why has the ophthalmologists emerged in this form? Because no separation of the many phases has ever resulted in the effectiveness of the mutually synergistic combination. It is important to preserve ophthalmology in this design and to bring our patients to an understanding and appreciation of its value to them.

G. E. Arrington, Jr., M.D.

Mr. Jefferson's Influence on American Medical Education

Some Notes on the Medical School of the University of Virginia

WILLIAM B. BEAN, M.D.
Iowa City, Iowa

One who knows the University of Virginia well, and the Medical School particularly, gives us a delightful account of Mr. Jefferson's influence on American Medicine in its early days, an influence that persists to the present.

AT THIS TIME of homecoming when our academic mother, Alma Mater, the University of Virginia and its School of Medicine welcome us gladly, we are in a mood of gratitude for all the gifts we have received. In this spirit of gratitude it is fitting that we bring thanks. Back in the fall of 1931, an era and an error of Depression and Prohibition, days of wrath before days of doubt, when all the negative aspects of our social order were being exposed in an atmosphere of gloom, our class first assembled here. We ourselves were hostages to fortune in bleak times. Work was the order of the day. We got as dour welcome a cadaver, a box of bones, and a place to park a microscope and a few large books. I am not here to rehearse the step by step progress of our four years as undergraduates, nor shall I attempt to ride herd on migrations, or activities on the home front which comprise our many individual courses in these last 25 years. Already death has thinned our ranks. Though I have the inclination, I have not the clear recollections which would let me review for us all the minutes of those formidable sessions of the Brandon Avenue Academy of Sciences where we learned of psychoses in utero and the blessed nutritional virtues of moose milk; nor need I recall for our corporate and convivial reunion, the nostalgic shadows of Mason jars along the Rivanna, of medical parties at Fry's Springs, of the ethanolic aura which frames our somewhat veiled recollections of Easter Weeks, Finals and such. Nor shall I talk of all our study, laboratories, books or exams. The green days of our youth are gone, to be recalled as each of us sees them in his memories, bent to his own rubrics in his own mental patterns.

Rather, let me try to glimpse with you that larger picture whose broad outlines gave us a background before which we began to seek, to find, to grow and to learn as student apprentices when we all became junior companions, novitiates in the family of our illustrious forebears. I have grasped at a topic outside the range of most physicians. Indeed it is one generally neglected by historians of medicine who too largely remake the past in the image of current prejudices or whims. My proposal is to talk to you of Mr. Jefferson, his role in setting in motion our University and its School of Medicine, and some of the influences he had and it had on the later doctrine and doings of medicine, theory and practice, especially as they concern the teaching, training and learning of physicians. What are the facts, the reasons and the causes, we shall want to know, why on this ceremonial 25th anniversary of the graduation of our medical school class I should consider Thomas Jefferson and his works as fit subjects for commemoration. Is it foolish for any of us, with ordinary talents, to apply his own yardstick to greatness? We may profit by measuring its successes and its failures, for even greatness falls short of perfection. In our age notable for the cynic, skeptic and debunker, an observer or critic may restore confidence and a capacity for admiration. Even as we carp at the living we forget veneration of the illustrious dead. The commemoration of heroes often suffers from the extreme subjectivity of the historian, for observer parallax, the "body English" of the writer, too readily warps his subject to fit his own cut of the

Read on the occasion of the 25th reunion of the class of 1935, Charlottesville, Virginia, June 10, 1960.

cloth. Though it languishes from neglect, the impulse to memorialize heroes comes from a warm human feeling. Neither is it idolatry. Besides, we may not unfurl for this occasion those ornaments of pagentry which provide for such festivals the ceremony and pomp of our English and European friends; but at least loyal motives of hero worship permit us to contemplate in simple piety and emulation Mr. Jefferson and a few of the results of his endeavors on our behalf.

I must acknowledge help from many sources. A. D. Hart, John Dorsey, Samuel Radbill, Chalmers Gemmill, John Wyllie and others supplied all manner of documents including the emergency delivery by a species of bibliographic Caesarean section of a galley proof of the Jefferson-Dunglison letters, which, after the ancient custom of making books, still lay growing in the gravely gravid press long past the expected date of delivery. All these, my collaborators, have my best thanks.

MR. JEFFERSON'S IDEAS

I have neither the skill nor the scholarship to weigh out on historic scales all the forces which went into the training, the learning and the wisdom of Mr. Jefferson, nor his role in founding our School of Medicine. I propose to develop several themes. Only a portion of one of them is included in that magnificent triad selected by Jefferson to mark his tomb. I hold that Jefferson, through his direct personal endeavors and his influence, introduced or fostered these things:

1. Development of a medical school in a university setting, establishing the same qualifications for physician teachers as for professors in other divisions of the arts and sciences.
2. State support of the training of physicians, that commonwealth might foster commonweal, and then in turn, health make wealth.
3. The development of an American medical school as a forum for finding and developing knowledge, that progress in the science of the future might be used by man to determine his own place in nature, and perhaps to control and improve it.
4. Learing in medicine as a part of the broad education deemed essential for a cultured gentleman.
5. Encouragement of physiology, the study of function and process, as a major element in medical education.
6. The first *full-time clinical teaching* in America.
7. Conservatism against the use of extraneous procedures and heroic drugging in medical therapy.
8. Honor among men as an essential element in maturity.

This is an ambitious undertaking for a summer day. I shall not try to develop all the theme independently or completely, nor can I put them in strictly logical sequence, for they are tangled in the net of time from which I catch them somewhat at random. A word is necessary to suggest the intellectual climate of Mr. Jefferson's day.

Despite the fact that doctors were treating patients, and a modicum of scientific medical progress was made in the 18th Century, the more numerous advances of medicine made during the 19th Century were related to the philosophy of the Enlightenment which culminated in the work of several great Frenchmen. Franklin and Jefferson were familiar with the origin, scope and spokesmen of the Enlightenment. Its philosophy underlay the American and the French Revolutions. It shifted the focus of man's attention from the fate of the soul and preoccupation with another world, to the improvement of conditions of the present world. It held a firm belief that through enlightenment, education and a rational approach to all problems, knowledge would really set man free. Applied science was emphasized and the term "social science" first appeared in the writings of the Enlightenment.

It was Mr. Jefferson's belief that men in a free society could serve their proper functions best if education of the flower of its young people, wherever they were found, was universally available. In his pyramidal system of primary and secondary schools culminating in colleges and a university, selection allowed demonstrated excellence in performance to qualify a student for advance. Those not sufficiently gifted would be trained for crafts or trade. It was the function of the state to provide and maintain the schools and, if necessary, support scholars so that the intellectual aristocracy did not depend upon the monied aristocracy, nor on a genetically determined nobility.

Living as an outlander now, I give you an example of how Mr. Jefferson's influence worked in certain parts of the Middle West; and, returning toward the East, bore unexpected and I believe largely unrecognized fruit. His important role in formulating the Ordinance of 1787 to establish and regulate the Northwest Territory is well known. The law re-

quired that a portion of land in each division be set aside to support public education. When Michigan was admitted as a state, every 16th section was set by for education; not quite a tithe but a good start; and from each section 3000 acres were designated to support the State University. This was long before land grant colleges retrieved some fraction of the spoils grabbed by the railroad magnates. Thus, beginning in Virginia and spreading to the Middle West, and later becoming general, Jefferson's idea of state support of education came to include the teaching of skilled physicians as part of the duty of the state. The ancient tradition of medical schools as appendages of hospitals and the development of proprietary medical schools for profit were opposed by the philosophy of state support of medical education within the auspices of university life.

THE SCHOOL OF MEDICINE

The proper location of a medical school has vexed many wise and loyal people. The twin desiderata of scholarly university life in an academic village and the large hospital-clinic with its company of indigent sick are nearly incompatible, but as we know, not quite. Contemporary phases of our own contest, Charlottesville versus Richmond, I recall as a personal feud of my boyhood. There was much passion on both sides. Perhaps the argument was settled on the basis of custom and friendship as much as anything else for Abraham Flexner and others recommended that the medical school stay in Charlottesville, Jefferson's academic village. Jefferson, in designing a medical school for his University, was certainly aware of the deleterious effect of the absence of a Southern medical school, but when the chair of medicine was established Jefferson made no attempt to convert it at once into a practical one. Thus its chief aim was not to give professional instruction as such, but a background of medical knowledge as a branch of liberal culture which every accomplished gentleman was required to master. Jefferson's views were probably those of expediency for he believed that in the absence of clinical facilities the emphasis of the new school ought to be confined to theory. Charlottesville was very small and in a sparsely inhabited region; and bringing invalids over bad roads was out of the question. Although for two years the School of Medicine had mainly its cultural purpose, it was enlarged in 1827 and Dunglison was confined to the role of professor of physiology, theory and practice of medicine, obstetrics, and medical jurisprudence. Dr. Emmet took on chemistry and materia medica; and Dr. Thomas Johnston became the first demonstrator in anatomy and surgery. By 1828 the M.D. Degree was conferred on four recipients. It was said that "One of the great advantages of the University of Virginia as a medical school for a first year is that the student is not overburdened with lectures, and has plenty of time to study the various subjects." No effort was made to use the student health service as a source of clinical material. In fact there was no student infirmary and unless some sympathetic faculty wife or boarding housekeeper took an interest the sick student was out of luck. The reaction to an early outbreak of typhoid fever was to ascribe the malady to a heavenly visitation on the University because no religious instruction was given within its walls. The Rev. Mr. Meade, later bishop of Virginia, was invited by the Visitors to "improve the occasion" by a sermon for the University professors and he subscribed to the idea of a special visitation. Typhoid was a punishment for impiety.

Another advantage of a small town school was that the medical professors, removed from "the commercialism of city life taught their subjects as did Latin professors" and others. In short they were scholars. Teaching is likely to flourish best in an educational atmosphere and this rarely existed in the medical schools of big city hospitals. A further advantage was that the course lasted for nine months at Virginia rather than the usual six months. It was recognized that without the opportunity for treating patients neither surgeon nor physician could be an entirely satisfactory expositor, so it became customary for graduates of the University of Virginia to complete their medical training with another session and sometimes another degree in one of the larger municipal hospitals of the Atlantic Seaboard, notably in New York City. This was the program followed by Walter Reed.

Before very long, however, Dunglison, at Mr. Jefferson's suggestion, developed the custom of meeting, in makeshift quarters, patients who were able to pay the 50 cents fee for registration. The money was used for drugs and supplies. He lingered half an hour after a lecture on alternate days to give medical and surgical assistance to the indigent without charge beyond the 50 cent fee. It was well recognized that this dispensary was small and inadequate.

DOCTOR DUNGLISON

Now let us turn to still earlier days. Recently Dr. Gemmill has written of how Jefferson sent Gilmer to Europe to find a professor of medicine to

round out his faculty. There was some uproar because a "foreigner, an Englishman" was selected but even that was considered safer than to take the American who was his closest competitor, for he admitted being a Unitarian. Dunglison narrowly escaped becoming an obstetrician. He had been greatly influenced by Mr. Haden, a celebrated London obstetrician, who had prevailed on him to select midwifery for his career. Already in May of 1824 he had announced a series of lectures on this subject to be given in London. But before he could carry this into effect, negotiations with Gilmer came to a crisis and he decided to move to Charlottesville. Dunglison, a very young man to head a school of physic, tells us quite frankly why he took the job. "One overwhelming reason . . . decided me. I was ardently attached to a daughter of Mr. Leadam whom I could not expect to be able to marry if I remained at London; for years to come. Whilst if I embraced the American offer I could do so immediately." Thus he made two fateful moves simultaneously.

During the three months on the high seas, enduring all manner of storms, Dunglison and his bride must have wondered many times at the wisdom of their decision to venture to a new land. Finally they arrived in Norfolk and made their way directly to Charlottesville. Dunglison went immediately to pay his respects to Mr. Jefferson. From the very first Jefferson was immensely pleased with Dunglison, in fact, so favorably impressed that he promptly took Dunglison as his personal physician. He actually submitted to his regimen without murmuring, though he had been a very irascible and skeptical patient and had often complained of suffering at the hand of doctors, even though his health had been good. He said, "I have been more fortunate than my friends in the article of health. So free from catarrhs that I have not had one, (in the breast, I mean) on an average of eight or ten years through life. I ascribe this exemption partly to the habit of bathing my feet in cold water every morning, for sixty years past. A fever of more than twenty-four hours I have not had above two or three times in my life. A periodical headache has afflicted me occasionally, once, perhaps in six or eight years, for two or three weeks at a time, which seems not to have left me; and except on a late occasion of indisposition, I enjoy good health; too feeble, indeed, to walk much, but riding without fatigue six or eight miles a day, and sometimes thirty or forty." Perhaps because his health had been so good Mr. Jefferson had a dim view of doctors and once "In the presence of Dr. Everett, afterwards Private Secretary to Mr. Monroe . . . he remarked, that whenever he saw three physicians together, he looked up to discover whether there was not a turkey buzzard in the neighborhood." Jefferson was not quite the humorless man he has been painted.

In the last part of his life Jefferson was afflicted with the melancholy difficulties of prostatic hypertrophy. This Dunglison treated not only by relieving the urethral obstruction by the passage of bougies of increasing size, but he taught Mr. Jefferson himself to use them; his enchantment with the mechanic arts was personal as well as general. Dunglison visited Monticello many times, as his diary records. He must have influenced his patient greatly for he says "Whatever may have been Mr. Jefferson's notions of physic and physicians, it is but justice to say that he was one of the most attentive and respectful of patients. He bore suffering inflicted upon him for remedial purposes with fortitude; and in my visits, showed me, by memoranda, the regularity with which he had taken the prescribed remedies at the appointed times." Another anecdote is related. "Mr. Jefferson on a return from some distanct jaunt had a cutaneous eruption, which his physician, Dr. Dunglison, pronounced to be the itch. Jefferson thought differently, but as his physician believed it to be the itch, he consented to use mercury, which salivated him. This annoyed him excessively—and he complained to Governor Coles of the unpleasant effects of the salivation. The Governor observed: 'Mr. Jefferson, you are the last man in the world, from your hatred of physic, of whom I would have expected any excess in taking physic.' Mr. Jefferson added with warmth: 'Yes, but I would rather have *the devil* than the itch.'" In the spring of 1826 Jefferson was attacked by dysentery. Although Dunglison was in continual attendance, the venerable patient failed rapidly, lapsed into coma and died; most fittingly on the 4th of July 1826, having the same death date as his ancient companion in political hostilities and comrade at odds, John Adams.

Dunglison was sought after as a consultant. He became the physician as well as intimate friend of James Madison, whom he attended in his last illness. He saw Mr. Monroe whenever that ex-president was at the University. He also took care of Jefferson's son-in-law, Governor Randolph, as he lay dying; and he treated other members of the Jefferson family. He was called by other V.I.P.'s, as indicated by his consultation when in Washington when President Jackson's physician, Dr. Thomas, got him in when

the Old Warrior was suffering with "pleurodyn". Having had fair experience in dealing it out himself, Jackson was a great advocate of blood letting. He wanted to be bled. But this Dunglison thought would endanger the life of the old general at the age of 70. So he prevailed with Dr. Thomas to recommend strong counterirritation instead, "warm plaister animated by cantharides" and not exsanguination.

MR. JEFFERSON AND MEDICINE

Although Jefferson was 82 when Dunglison first met him on his arrival in Charlottesville, his intellectual powers were still active and resilient. Dunglison, who was always much impressed by the views of those whom he admired, was greatly influenced by so forceful and famous person as Mr. Jefferson. Those who have studied Dunglison's publications recognize the sharp turning point after he came under the spell of Jefferson who repeatedly emphasized philosophy, medical enlightenment and education of the public as the best means of combating superstition and medical delusion.

He is remembered for his promotion of smallpox vaccination, for setting up of a student health service, and establishing a free dispensary. These demonstrate Jefferson's advanced and progressive health views. He studied housing and city planning as problems of public health. His self-study "Head and Heart" is a psychological masterpiece of the first order. To Dr. Thomas Cooper, on October 7, 1814, Jefferson had written, "In his theory of bleeding and mercury, I was ever opposed to my friend Rush, whom I greatly loved; but who had done much harm, in the sincerest persuasion that he was preserving life and happiness to all around him." In this same letter he likens "the theory (not the practice) of medicine" to a "charlatanerie of the body, as the other (Theology) is of the mind." Jefferson's innate skepticism and rejection of heroic treatment influenced Dunglison to moderation in the use of drugs. Dunglison himself stated later in life "Mr. Jefferson was considered to have little faith in physic; and has often told me that he would rather trust the unaided or rather the uninterfered with efforts of nature than physicians in general." Thus Jefferson undoubtedly had a very salutary influence on Dunglison who gave up the fearful and heroic therapy recommended in his book, *Commentaries on the Diseases of the Stomach and the Bowels of Children,* published the year before he left London in 1924. Incidentally this book was probably the main reason for his invitation to come teach in Mr. Jefferson's academical village.

FULL-TIME MEDICINE

Financial arrangements of the time are noteworthy. They had been a source of some worry to Dunglison. He had entered into an interesting compact with Mr. Gilmer. He promised to teach with proper diligence, anatomy, surgery, the history of the progress and theories of medicine, physiology, materia medica, and pharmacy at the University of Virginia. He was guaranteed a salary of $1500 a year plus free living quarters and any fees to be obtained from students. A bit later he recommended the removal of Latin as a prerequisite for admission to medical school since he thought this was reducing the number of students.

Under the arrangements worked out with Mr. Gilmer and Mr. Jefferson and according to the stipulations of his contract with the University of Virginia, Dunglison's practice was limited to consultation. As Dr. Radbill has said "Thus was set the precedent at the University of Virginia for the employment of a full-time medical instructor, a precedence which was slow to take hold in American medical education." In the French medical schools, where hospitals were the historic focus, professors not uncommonly were full-time men. They were rich men. They had to be. They had no financial stake in the size of the class, getting nothing from students. This had not been true of English or American medical teachers. Usually their only stipend came from fees collected from students, each of whom paid a sum when he obtained a ticket for a specific course. This fee belonged to the teacher. Since fees were uncertain and hardly ever sufficient for complete support, clinical teachers supplemented their salary by private practice. Some teachers willingly worked for nothing because of the prestige attached to an academic position. A salary which could provide for the living of the medical professor in the United States was unknown.

In Dunglison's diary we find that administrative problems seem to be as old as universities and medical schools. At least there are many notations to the effect that the roof leaked in Pavillion X, that the University authorities were reluctant to do anything about it. The ensuing dampness is said to have undermined Mrs. Dunglison's health. Be that as it may, his wife's poor health was given as the reason for his leaving the University after nine illustrious years, though Dr. Dunglison had written in his diary earlier "Perhaps a location could not exist, which is more healthy than the University of Virginia."

DUNGLISON'S INFLUENCE

Dunglison continued his influence on American medicine during the 19th Century by his many writings, his teaching and his great example. He was a remarkable man. He was a pioneer in the systematic teaching of physiology, introducing it into his own classes and through his textbooks making the subject more and more acceptable to a wide group of medical teachers who still practiced the largely didactic teaching of the day. The reason Beaumont went to Dunglison for analysis of St. Martin's gastric juice may be found in Beaumont's statement that "Professor Dunglison's work on human physiology, taken as a whole is perhaps the most comprehensive." Dunglison was not an innovator or originator and not a profound thinker, though he was a scholar. His omnivorous reading and his ability to digest the massive material of the day and present it in a readily acceptable form are examples of his industry and his practical sagacity, as well as his acquaintance with nearly all medical books from Europe whence at that time came most new medical information. His attractive method of presentation had made him an outstanding and distinguished lecturer as well as writer. In his day in America creative scholarship and productive work in research or critical observation of natural history were rare in medicine. Thus the ability to express forcefully and clearly the thoughts of others constituted the accepted grounds for the reputation of a medical teacher and writer. As such Dunglison was a supreme teacher and his incredible industry is illustrated by the many many books he wrote. He was influential in promoting the development of something like Braille and with William Chapman prepared a dictionary of the English language for use of the blind. His skill as a peacemaker in the sometimes rowdy medical problems of Philadelphia undoubtedly had an influence for the good and not only helped heal civil wars within Jefferson Medical School itself, but made the relations between it and the University of Pennsylvania smooth and pleasant.

Concerning his Textbook of Physiology which he had dedicated to his friend and patient, Mr. Madison, and his introduction of physiology into the medical curriculum Gross says: "What Albert von Haller's great work accomplished for physiology in Europe in the 18th Century Dunglison's accomplished for it in America in the 19th. Each affords a complete summary of the literature of the science at the time at which it was written, each is rich in learning, accurate and logical in its statements of facts, exhaustive in matter, philosophical in its deductions. Each marks an era in the history of physiology."

Dunglison's medical dictionary was a work of marvelous labor and erudition. It earned for him a world-wide reputation. Medicine was advancing rapidly so that each edition was a real advance over the previous one. As an example of the work that went into it, the last issue he edited before his death had 6000 new words introduced. In all his books Dunglison had the happy faculty of discerning what the profession needed. He is said never to have written an unkind paragraph against any human being in or out of the profession. He avoided disputation and made every effort to surpress it. Like Haller, his great prototype of the century before, he could not bear the sight of blood.

He had a large, well selected and costly library. System was a great factor in his success as a writer and as a teacher. His books for consultation and reference were arranged on a rotary stand within easy reach, an admirable time-saving plan. Dunglison's chirogaphy was very angular and crabbed and very difficult to decipher. It was like what Daniel Webster said of the word "would" in Rufus Choate's handwriting. It resembled a small gridiron struck by lightening. Gross said, "Before I become Dunglison's colleague I often received letters from him, which after a cursory perusal I generally laid aside for a more careful reading the next day. Printers, however, soon became used to his copy.

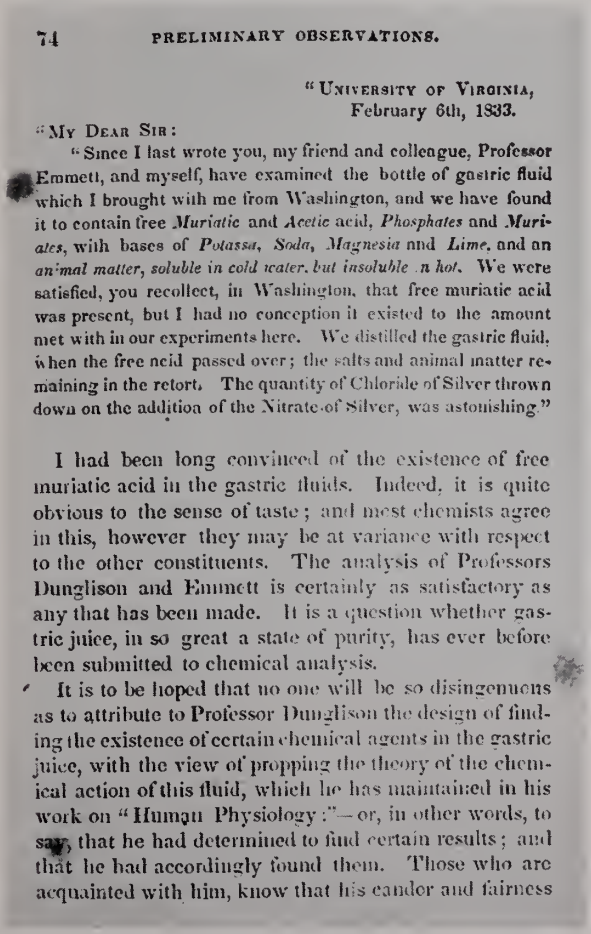
DUNGLISON'S FAREWELL TO HIS STUDENTS

Dunglison, in his farewell talk to his students when he left Charlottesville in 1833, said "It has always been my anxious endeavor to remove everything of mystery from the science which it is my line to teach; to separate fact from hypothesis, and to attempt to exhibit it, as far as it is capable of being exhibited, as a demonstrative science. I have ever recommended you, in deducing your therapeutical indications, to be guided by general principles; to avoid being wedded to any exclusive sect or system,—fondness for which has been and is a striking obstacle to the advancement of medicine; to watch philosophically and diligently the march of nature; to discard all blind empiricism, and where you are in doubt rather to give the patient the benefit of the doubt than to risk his safety by the rash administration of that which may be the bearer of good or evil; to cherish no arcana; and as a general principle to freely expose to your patient, if intel-

ligent and if he desire it, the grounds on which you proceed in the management of his case. If you cannot do this there will generally be good reason for supposing that your comprehension of the case is not as clear as it ought to be."

A DIGRESSION ON THE HISTORICAL ASSOCIATION BETWEEN DUNGLISON AND WILLIAM BEAUMONT

Because Beaumont was not a chemist it was necessary for him to submit samples of Alexis St. Martin's gastric juice to those who could do the appropriate tests for him. He sent samples to some of the great chemists of Europe. These apparently either went astray or the gastric juice eroded the corks in the little vials and the samples were wasted. In any event this letter which I show you from my copy of the Second Edition of Beaumont's book, is the results of studies he did with Professor Emmett. (Figure 1) I assume that his laboratory was his home on Pavillion X East Lawn, the house in which my family lived during the late years Father was Professor of Anatomy.



74 PRELIMINARY OBSERVATIONS.

"University of Virginia,
February 6th, 1833.

"My Dear Sir:

"Since I last wrote you, my friend and colleague, Professor Emmett, and myself, have examined the bottle of gastric fluid which I brought with me from Washington, and we have found it to contain free *Muriatic* and *Acetic* acid, *Phosphates* and *Muriates*, with bases of *Potassa*, *Soda*, *Magnesia* and *Lime*, and an *animal matter, soluble in cold water, but insoluble in hot*. We were satisfied, you recollect, in Washington, that free muriatic acid was present, but I had no conception it existed to the amount met with in our experiments here. We distilled the gastric fluid, when the free acid passed over; the salts and animal matter remaining in the retort. The quantity of Chloride of Silver thrown down on the addition of the Nitrate of Silver, was astonishing"

I had been long convinced of the existence of free muriatic acid in the gastric fluids. Indeed, it is quite obvious to the sense of taste; and most chemists agree in this, however they may be at variance with respect to the other constituents. The analysis of Professors Dunglison and Emmett is certainly as satisfactory as any that has been made. It is a question whether gastric juice, in so great a state of purity, has ever before been submitted to chemical analysis.

It is to be hoped that no one will be so disingenuous as to attribute to Professor Dunglison the design of finding the existence of certain chemical agents in the gastric juice, with the view of propping the theory of the chemical action of this fluid, which he has maintained in his work on "Human Physiology;"—or, in other words, to say, that he had determined to find certain results; and that he had accordingly found them. Those who are acquainted with him, know that his candor and fairness

Fig. 1

ANOTHER AND PERSONAL DIGRESSION

In this connection I shall tell of a curious family connection with Dunglison which has led me to the acquisition of a charming portrait of Dunglison painted in 1847 when he was in Philadelphia. This I intend ultimately to give to this School of Medicine. Dunglison's neighbor and devoted friend in the small isolated academic community, Charlottesville 130 years ago, was Robert M. Patterson, my great great uncle, who was chairman of the School of Natural Philosophy and for a time chairman of the faculty, a position, analogous to that of president of the University and one which Dunglison held too. After Dunglison had been in Charlottesville for nine years he left for the University of Maryland where he remained several years before going to Jefferson Medical School in Philadelphia where he lived the rest of his life. Robert Patterson also left the University of Virginia and he too went to Phaladelphia where he became director of the Mint. The close friendship of the two men continued and as a token of mutual regard and esteem when Dunglison had his portrait painted, he gave to Robert Patterson, the portrait which I display here and which is now in my possession. (Figure 2) Though this deflects us again from the main theme this is how I got it. After Father had died and Mother had left Charlottesville to go to Bethlehem, Pennsylvania to live she began to check up on relatives and distant cousins whom she had not seen for 40 to 50 years. One of these, Cousin Otey Patterson, had become a Catholic priest. When, upon visiting him, she was admiring some portraits of ancestors we had in common she came upon one she did not recognize. This turned out to be Dunglison, the portrait which had belonged originally to Cousin Otey Patterson's great grandfather, Robert Patterson. He mentioned that it was a pity that there was no doctor in the family that he might give it to. Here Mother was able to straighten him out very promptly. He said tell him to come and get it if he would like to have it. Well, the upshot was that after the Atlantic City meetings the next May, seven or eight years ago, my two sisters and Mother met me in Philadelphia and we paid Cousin Otey a visit. After a proper ceremonial delay over cakes and sherry, Mother asked if he had been serious about wanting to get rid of the portrait. He told me to climb up on the wall, take it down and carry it away with me. This I did. That is the story of the rather unlikely pilgrimage of Dr. Dunglison's elegant portrait out to Iowa City.

PERSONAL DIGRESSION

Since my span of personal connection with the University of Virginia covered the 20 years between 1916 and 1935 and since I lay under the interesting double relationship of son and student of Robert Bennett Bean, the professor of anatomy during those years and later, I will mention a few personal reminiscences with proper filial piety towards my physical Father and academic mother, not omitting my great debt to my own Mother. A few in this audience whose recollections go back 40 years or so will remember the fetid and unsavory aroma which hung over the halls of "Baron Bean," a building which scarcely dared raise its head and peer up the hill at Peabody Hall and the old chemistry building over near the then ancient ice pond. But even the dissecting hall was not without a somber dignity. I have it on good authority that once an illustrious visitor, coming to the precincts after some formal academic procession, in cap and gown was startled to have Father remove his cap and put it in his hand. He told him not to wear his hat in the presence of the dead. The pompous gentleman, deflated, made off in haste. I suppose growing up in an atmosphere of dissecting halls, skeletons, anatomical books, and specimen jars with lurid contents made a career in medicine logical for me, though my family had intended that I become an Episcopal minister. I often shudder to think what might have happened to the Church had I not deflected myself into a career in medicine.

Fig. 2

With small classes and intimate concern for in-

dividual students to whom the faculty here has always given great attention, I was privileged to know a great many physicians when they were undergraduate students or residents. I have many recollections of generations of undergraduate students, in a way the intellectual flower of their day. They sat in relays before the faculty for lectures and those examinations which left such a deep impress upon us. Before I myself was an undergraduate medical student often I was able to resolve and alas sometimes to confirm the anguish which a student might have about marks on certain blue books which I was privy to, long before the official examination grades were posted. In later travels and speech making I often run into Father's former students whom I may or may not have known myself. Two things strike me—one is the excellence of these physicians, and their fine record. In our time selection has been rigorous and no one has been able to go to medical school just because he wanted to be a doctor. For a long time the student body was not so selected. It was homogeneous, coming from the Southern States chiefly; and this excellence has been maintained with the advent of more cosmopolitan elements into the student body. The second point is that, in part because of the background of the School of Medicine, with emphasis on culture aspects and with the relatively slow development of clinical facilities, the position of research in the college of medicine for a long time did not get enthusiastic support from the administration, or provide the launching pad from which the heights of academic medicine were reached. Perhaps the relative poverty of the Southern States, perhaps the spirit of the times kept research in a very minor key during the period when Father was struggling very hard to continue a program of fundamental research. Not being traditional, it received little support from the University administration. Perhaps Father was somewhat paranoid about it, but I remember innumerable comments he made at home about lack of appreciation and lack of tangible support in the way of financial assistance. I was never quite sure that physical anthropology, his field of endeavor, did not seem especially curious and a little absurd to those who determined policy.

In the informal arrangements set up for the building of the "new" medical school building in the late 1920's, as chairman of the building committee, Father found it necessary to sign most of the vouchers and spend a good deal of time every day at the site of construction. He was really the foreman. Though it was hard work, especially in the hot summers, I am sure he enjoyed it. He was hurt and the architects with whom he worked closely were shocked when no simple word of thanks or recognition was given at the ceremony of dedication when many were introduced for a word of praise and hundreds of names, officers, faculty, contributors of small donations, were read off. These feelings he kept to himself. They never prevented him from serving in every way the University which he loved beyond measure. Perhaps he had a special ability to let his light hide under a bushel. He himself was never able to embody a private Beatitude he got from his own Father, which he would tell us at home from time to time—"Blessed is he that tooteth his own horn, for he that hath a horn and tooteth it not, the same shall not be tooted." Those of you who know me well may suspect that this precept rather than Father's example influenced me. Father was a great admirer of Thomas Jefferson and it was from him that I first came to have any comprehension at all of Mr. Jefferson's many and great contributions to the University, to our country and to the world.

"Father's excellence as a teacher of anatomy will be remembered by several generations of students. He made a model of the peritoneum which clarified much of its inherent complexity; and taught cerebral nerves in a logical rather than traditional manner. He believed that dissection and demonstration were the prime tools in learning anatomy. Text-books and models were complementary to dissections and lectures. His informal lecture, the quiz-talk, was highly successful though not without some terror for the lazy student. Much of its value lay in the charm and dignity of his personality and the high ideals of scholarship and research he taught and exemplified. His relationship with his students is epitomized in his nickname—"The Baron." Anecdotes were freely used to bring home a point, and the aphorisms and teachings of Sir Thomas Browne, Osler, Pasteur, Darwin, Hunter and others were mingled with his own. A host of students recall the "area of abdominal romance" where the head of the pancreas lies in the arms of the duodenum and has its feet tickled by the spleen, when they have forgotten more erudite aspects of anatomy. His essay on teaching anatomy might be read with profit by many today."

"He had more regard for principles than dogma. An abiding belief in simple Christian virtues characterized his dealings with his fellow man. He was always a friend and often a counselor of his students. His generosity and anonymous benefactions in the community still come to light from time to time.

During a period when moral and scientific standards have often given place to laxity and opportunism, he remained true to the highest ideals; and his teachings and example were such that memory of him is a reaffirmation of faith in human dignity and honor."

MR. JEFFERSON'S FORGOTTEN INFLUENCES

I return to a theme overlooked in medical history. Though it is important I do not wish to give it undue prominence or undeserved emphasis. My thesis is that in a roundabout way the example of Mr. Jefferson and the University of Virginia, as they influenced the University of Michigan, were important in determining the direction that Johns Hopkins medical school and hospital were to take. I have mentioned Jefferson's role in the Ordinance of 1787 and the designation of parcels of land in the territory to support education. The earnings from the 3,000 acres in each section, assigned to support the University of Michigan, were administered by a superintendent of public instruction. Thus some of the flagrant exploitation and robbery which pockmarked the early history of so many other states, did not occur.

To what influences may we attribute the emphasis on science by the Regents who launched Michigan's University at a time when classical and humanistic studies still dominated New England universities? The following comes largely from Victor Vaughan's autobiography. There were two real scientists on that Board, and while the majority of them may have been without special fitness for the work before them, these two evidently knew what they were doing. They were Henry R. Schoolcraft, the great explorer and naturalist as well as the wisest student of Indian lore in the region of the Great Lakes, and his companion and fellow student, Dr. Zina Pitcher, later president of the A.M.A. Supporting the Regents were the Governor and the Superintendent of Public Instruction, since all important acts of the Board required the approval of these officials before becoming effective. Indeed the Regents were named by the Governor and he was the President of the Board. A Virginian, Stevens T. Mason was Governor of the Territory and State of Michigan from 1831 to 1840. He had much to do with the foundation and inauguration of the University. The Superintendent of Public Instruction, the Reverend John D. Pierce, a graduate of Brown University, was appointed by Governor Mason. The two were in agreement on educational matters, in which both were deeply interested. Mason as a Virginian was intimately acquainted with the scientific activities and ideals of Mr. Jefferson. It is undoubtedly true that to the mass of the people in the Northwest at that time the work of Thomas Jefferson in founding the University of Virginia was unknown, but Schoolcraft, Pitcher and above all Governor Mason, knew it well. The details followed in the development of the two universities are too similar to have been accidental. Both required preparatory school training and both stressed scientific work. Victor Vaughan wrote "The claim that the ideals of a state university as developed in Michigan in 1837 came from a study of the Prussian system of education seems to me to have been unduly stressed. Indeed, when Thomas Jefferson committed to writing his plan for the organization of the University of Virginia in 1812 Prussia had no system of education. The first professor of modern language in Michigan University (1846) was Louis Fasquelle; and French, Italian and Spanish were taught in this University before any provision was made for the teaching of German."

Still another evidence of the scientific spirit of the original Board of Regents is the fact that one of their first appropriations was the sum of ten thousand dollars for the purchase of scientific apparatus and books. This is exactly what one would expect of such men as Mason, Schoolcraft and Pitcher.

I think none will deny that Michigan with its laboratories, its strong orientation towards the natural sciences and its medical faculty which early came to control and run a hospital of its own, was a unique school at a time when classical and humanistic studies were the exclusive focus under the theologic emphasis of universities on the Eastern Seaboard, particularly those in New England. Everyone recognizes the marvelous contributions to the Johns Hopkins medical complex of Daniel Coit Gilman, an imaginative genius who helped found the medical school and hospital, John Shaw Billlings, who designed the hospital and helped get the proper people for the staff of the medical school, Popsy Welch, the wise administrator and organizer, and the fabulous Big Four, Osler, Halstead, Welch and Kelly. But just behind the Big Four was a quieter though not less effective phalanx of four horsemen usually overlooked as historical forces in the development of the Johns Hopkins Medical system. They were Mall, Abel, Howell and Hurd, all of whom came from Michigan. All had been steeped in a

system which owed much to the example of Mr. Jefferson and the influence of his Medical School. Several recent historians have thought that it was Mall's powerful ideas expressed anonymously through his influence on Welch, which really determined the cast and program of the John Hopkins, and ultimately led to the developerment of full-time medicine there, almost a hundred years after it had been introduced by Mr. Jefferson at the University of Virginia.

Scholars have recognized that Mr. Jefferson, the best informed and most versatile of our presidents, was rightly credited with important accomplishments in education, science and the arts, in paleontology, scientific agriculture and inventions. His genuine concern for his fellow man and his hope for the future of the American people led him to speculate on methods of prevention and treatment of disease and the most healthful occupations and environments for mankind. He was concerned with medicine too and his vast reputation caused people to address to him all sorts of inquiries, some of which were embarrassing and put him in a difficult position because he became in a way an *al fresco* medical consultant to his people. They asked him his opinion of certain physicians, the cause of diseases and, indeed, sent him papers, inaugural dissertations and results of scientific work for his critical suggestions. Jefferson had two traits which made him sharply critical of the medical customs and practices of his time. First, he believed that observation and experiment were the basic conditions for scientific inquiry. This he illustrated in his agriculture and mechanical experiments, his arrangement of tabular data on weather, his field work in paleontology and in many other ways. But he combined with this a firm confidence that practical utility of a method or an idea was a good test of its value. To be worthy of man's consideration science should contribute to human welfare.

As I grow older I am more and more impressed with the importance of ideals of honor, high standards, and the desire to achieve excellence in all walks of life as determinants of those things which really matter. Perhaps this is a sign of senility in a hard-bitten age. But I do not believe that it is. I need not recount for you the early student riots, rebellious, and indeed an assassination which led the student themselves to establish a code of honor, a gentlemen's agreement, for internal self-discipline as it should be maintained by responsible young adults. It is a natural human reaction that constant supervision and rules provoke a spirit of rebellion among young men who find keen satisfaction in sly efforts to get around such restrictions. The sense of obligation which most of us feel to act fairly is weakened when rectitude is tacitly questioned by the suspicion of supervisors. As Mr. Jefferson has said, "The human character is susceptible of other incitements to correct conduct more worthy of employ than fear, and of better effect." So not the least of the gifts of Mr. Jefferson's school has been the opportunity it gave each of us—the chance to learn in a setting where we had the challenge and the opportunity of study, training, discipline, and honor, the annealing furnace which takes diverse raw materials and builds character.

IN CONCLUSION

You have borne with me as I have made a cursory sketch of Mr. Jefferson's influence on the University of Virginia Medical School, on Dunglison and on many others including everyone here, for its ramifications stretch all the way up to the present. Strictures on time have spared you my effort at filling in the whole scene. I have not discussed many illustrious alumni such as Walter Reed, Hugh Young, Rupert Blue, Tate Mason, James McLester, the later three presidents of the A.M.A. and many other alumni have made important contributions to American medicine. A whole address might embellish the theme of the numerous alumni who have contributed to military medicine.

It was a measure of Mr. Jefferson's greatness to embody his far-seeing ideas and high ideals in selecting the men to carry his program forward. Leaving out his major political contributions and those to general education, his wise vision fostered the development of a medical school in a university setting, supported by the state, for the training of physicians. This medical school was a worthy forerunner of our modern medical schools. Mr. Jefferson included a general knowledge of medicine in the liberal education of a gentleman; he encouraged research and the development of physiology. He provided the first full-time clinical teaching in America in a university school of medicine. He preached and practiced conservatism against the heroic drugging, blood letting and other crimes of the systematists done in the name of therapy. And above all he emphasized honor and responsibility as quintessential in the training of physicians. In the name of all that large company of student companions in medicine, our fellow alumni and alumnae, past, present and

future, I bring my message of tribute and affection for Mr. Jefferson, for in honoring him we honor ourselves.

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Effects of Hormone Therapy in Patients With Diabetes

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Although several hormones have an influence on carbohydrate metabolism, the adrenocortical steroids have the most significant effect on the state of control of diabetes. Before giving these patent hormones to the diabetic or potential diabetic, one should be sure that the drug is needed and should be prepared to recognize and deal with its effect on the diabetes.

IN A SENSE, the management problems of a diabetic patient are like those of a man condemned to spend his life afloat in a slightly leaky boat. Regardless of time or weather, sickness or health, work or play, a certain amount of effort is inexorably required to bail out the boat. Complete neglect will lead to eventual disaster, but even the most zealous exertions to get the boat completely dry are only transiently successful before the same old familiar problem recurs.

Without belaboring the analogy further, it is well-known that diabetic control is often a variable and sensitive thing, responsive to practically any change in the body's nutritional status, energy balance, or metabolic pattern. And since hormones act in large part through an effect on intermediary metabolism, it is easy to see that almost any hormonal imbalance may influence pre-existing diabetes.

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This does not mean that the effect is necessarily important from the clinical standpoint. Table I shows that some endocrinopathies are diabetogenic and some anti-diabetogenic in normal individuals, but most patients show little effect either way. Naturally, pre-existing diabetes would leave the patient more sensitive to these influences, but even then the effect can be quite variable. Prompt, definitive treatment in these diabetogenic diseases will often restore the metabolic state to normal, or at least to what was normal for that patient. This is also true in the hormonal correction of endocrine deficiency states. On replacement therapy, the severity of the diabetes eventually returns to what it was before the onset of glandular insufficiency. This is also generally true when diabetes appears in a patient with pre-existing deficiency, even though at first it may seem unusually hard to control.

In pharmacologic doses, as opposed to physiologic, hormones may have a definite effect on the severity of co-existing diabetes, and may even induce iatrogenic diabetes. Perhaps fortunately, only a few hormone preparations are available in quantity for such relatively massive therapy. These few include gonadotropins, thyroid hormone, adrenal medullary hormones, adrenal cortical steroids, and the natural and synthetic androgens, estrogens, and progestins.

Without going into their therapeutic indications, the gonadotropins may be readily disposed of since they appear to have a negligible effect on the general metabolic picture, whether or not the patient happens to be diabetic.

Nor-epinephrine is practically never given except to combat a life-threatening degree of hypotension, in which case the physician would not worry particularly about any diabetogenic effects. As a matter of fact, no such effects have been known to occur. Epinephrine on the other hand, has a definite diabetogenic effect via its ability to promote glycogenolysis of glucose from the liver. This effect, however, is as short-lived as the better-known effects of epinephrine on the cardiovascular system. It would probably not be clinically significant except in cases

of prolonged administration of large amounts, e.g., in status asthmaticus, angioneurotic edema, or anaphylactic shock. Even here the need for such therapy undoubtedly would far outweigh the diabetogenic risk and any effect on the blood sugar would presumably disappear as soon as the drug was stopped, if not before.

The situation with regard to thyroid hormone is quite different. In this case we know that large doses will exaggerate the diabetic state, but in the absence of hypothyroidism there are few if any disease states which demand large doses.

Both androgens and estrogens have been reported to improve the control of diabetic patients also receiving insulin. Experimental evidence supports this observation, and it appears that this effect is most prominent in poorly controlled diabetes and consists mainly in reduction of the fasting blood sugar. The mechanisms are poorly understood but may involve a dampening effect on the release of glucose from hepatic glycogen. Large doses are necessary for this effect.[1,2,3,4]

Of course, the real villains of the piece are ACTH and the adrenal cortical steroids. As noted in Table I they are quite potent diabetogenic compounds. They are certainly readily available and have been recommended in the therapy of every disease from alcoholism to xiphoiditis. Furthermore, such a welter of new synthetic steroids has appeared, under such a variety of trade names, and so frequently in combination with analgesics, tranquilizers, antacids and the like, that it is quite possible to give a patient an adrenocortical compound without fully realizing it.

We can dismiss ACTH by saying that its diabetogenic action is exerted via its stimulating effect on adrenal steroidogenesis. A ketogenic effect of ACTH in adrenalectomized animals has recently been demonstrated[5] but the Addisonian patient usually doesn't get ACTH except briefly as part of a diagnostic work-up.

The diabetogenic effect of adrenal cortical steroids is probably secondary in their inhibitory effect on protein anabolism.[6] As shown in figure 1, the deamination of the unused amino acids provides the raw materials for hepatic glycogen synthesis, or gluconeogenesis, traveling the usual path of glucose utilization but in the opposite direction. The release of glucose from the liver is increased and the fasting blood sugar, but especially the tolerance to exogenous glucose, show a progressive diabetic trend. The persistent hyperglycemia stimulates increased insulin production; when this becomes inadequate, which may be immediately, soon, late, or never, diabetes results.

The effect of steroids on ketone body production has been much more difficult to elucidate. Clinically, the diabetes of Cushing's disease has not usually been severe, but the administration of steroids to diabetic patients often provokes severe ketoacidosis. Animal studies have revealed similar discrepancies. Cortisone has been found to suppress ketogenesis in the non-diabetic adrenalectomized rat,[8] but to provoke it in the non-adrenalectomized pancreatectomized rat.[9] The best explanation of the discrepancies must hinge on the organism's ability to increase insulin production in response to the hyperglycemia produced by the steroids. If no such increase is possible, ketosis will occur promptly and become a serious problem. The mechanism involved is the usual condensation of acetate radicals in the liver, when the supply of

Table I. Incidence of Metabolic Effects in Endocrinopathies

Gland	Effect on Cho Metabolism	Reported Incidence
Pituitary		
1. Acromegaly	Diabetogenic; ketogenic	12-40%
2. Hypopituitarism	Spontaneous hypoglycemia	43%
Adrenal		
1. Cushing's	Diabetogenic	20-30%
2. Addison's	Spontaneous hypoglycemia	50%
3. Pheochromocytoma	Hyperglycemic, glocosuric	61%
4. Cong. hyperplasia	Spontaneous hypoglycemia	?
Thyroid		
1. Thyrotoxicosis	Diabetogenic	1-10%
2. Myxedema	Insulin sensitivity	?
Parathyroid, Posterior pituitary and Gonadal	Insignificant	

oxalacetate, their usual means of entry into the Krebs cycle, is being used for other purposes, i.e. gluconeogenesis.

Such is the mode of action of hydrocortisone, the naturally occurring adrenal steroid. Little if any diabetogenic effects have been ascribed to the other endogenous compounds, corticosterone, aldosterone, etc.[10] But the synthetic compounds are legion, and their metabolic effects must be carefully scrutinized. It is interesting how frequently the manufacturers herald the advent of each new synthetic steroid with the claim that this drug is x times more potent than the last, but much less likely to produce edema, diabetes, ulcer or psychosis. While the edema problem has indeed been almost licked, and the true incidence of psychosis and ulcer is often hard to evaluate, it seems highly unlikely that any new compound will have increased anti-inflammatory activity without a concomitant increase in diabetogenic activity. If the anti-inflammatory effect is an effect on protein synthesis, and protein catabolism is a part of gluconeogenesis, it is obvious that these two effects must go hand in hand.[11] The relative potencies of some of the newer synthetic steroids, compared to hydrocortisone, are shown in Table II.

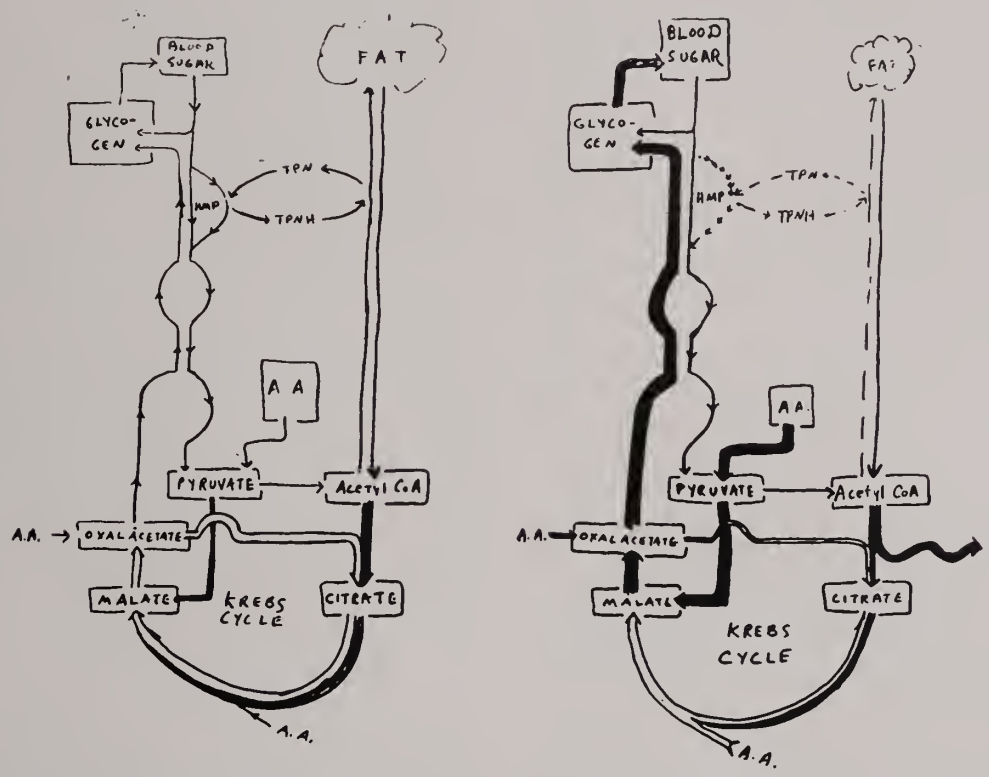

Fig. 1—*Effects of Glucocorticoids on Hepatic Metabolism.* In the normal situation, on the left, incoming blood sugar may be stored as liver glycogen or metabolized to pyruvate. Metabolism via the hexose monophosphate pathway (HMP) is believed to be linked to fat synthesis. Pyruvate shares with fatty acids the ability to become acetyl-coenzyme A, which must condense with oxalacetate to form citrate and enter the Krebs cycle. Deamination of amino acids results in new formation of pyruvate, oxalacetate, and other Krebs cycle intermediates. All of these may be metabolized to oxalacetate which then takes a synthetic course to form glycogen which may be broken down and released as hepatic vein glucose. This synthetic course does not always retrace the steps of glucose breakdown.

Under the influence of glucocorticoids, on the right, the primary effect is inhibition of protein anabolism, with a concurrent excess of amino acids which, deaminated, lead to excesses of pyruvate, malate and oxalacetate. The metabolism of the latter is diverted toward gluconeogenesis and the result is impaired glucose tolerance, hyperglycemia, or frank diabetes. The steroids also appear to decrease glucose metabolism via the HMP pathway, interfering with fat synthesis which results in an increase in acetyl-coenzyme A, derived from fatty acids. Since most of oxalacetate is being diverted elsewhere, condensation of the acetyl-coenzyme A molecules results with the formation of acetoacetyl-Co A and B-hydroxy-butyryl-Co A. These are released in hepatic vein blood as the well-known ketone bodies.

With these points in mind, it is a little easier to evaluate the hazards of steroid therapy in diabetic patients and our ability to reduce those hazards. Several practical considerations are worthy of mention.

In this day and age, it has become a ritual to begin

by saying that before initiating steroid therapy the physician must first be sure his patient has a disease which is a serious threat to his health, can be helped by steroids, and will not respond to other forms of treatment. This cannot be over-emphasized, regardless of whether the patient has diabetes or not.

Once this decision has been made, others follow. First a well-controlled diabetic is less likely to get into trouble than one poorly controlled. Hence, if the need for steroids will permit of some delay, it behooves the physician to get the patient into as good control as possible prior to instituting steroid therapy. And it follows that if the patient is a "brittle diabetic", i.e., one that experience has shown to be never well-controlled, regardless of the approach, it may be well to ponder again the need for steroids in the first place.

Table II. Potency of Glucocorticoids (in Relation to Hydrocortisone)

Name of Compound	Na/K Ratio	Anti-Inflammatory	Hyperglycemic
Hydrocortisone (F)	1	1	1
DOC	50	±	0
Aldosterone	5000	±	0
9-α-fluoro-F (Fludrisone)	50–100	5–10	8
Δ'-F (Prednisolone)	1	4	4
Δ'-6α-CH_3-F (Methyl prednisolone)	±	4–6	5
Δ'-9α-fluoro-16α-OH-F (Triamcinolone)	±	4–6	5
Δ'-9α-fluoro-16α-CH_3-F (Dexamethasone)	?	8–10	4
Δ'-9α-fluoro-F	.....	15	25

In instituting steroid therapy, it seems reasonable to increase the dose gradually to the point of barely satisfactory control of the disease rather than to start off with an arbitrary large dose and work down. The latter method makes it more difficult to interpret changes in the diabetic state, and there is no good evidence that it is more efficient anyway.

During the period of stepwise increase in the dose of steroids, the patient should be watched closely, needless to say, for increasing hyperglycemia and ketonuria. However, a diabetes that is benign even after the maintenance dose level has been reached is no guarantee that it will remain benign during prolonged therapy. Eternal vigilance is also the price of normoglycemia.

If control does begin to deteriorate under the influence of the steroids, and the patient is on insulin, he should take more. This is both easy and safe, since a reasonable increase in insulin dosage is unlikely to cause sudden hypoglycemia under these circumstances. If the patient is receiving the oral sulfonylurea drugs, their dose may also be increased, although this usually is inadequate and insulin must be used eventually. If "steroid diabetes" begins in a previously normal patient, it is certainly worth while to begin treatment promptly with the oral drugs, but success is by no means certain.[12,13,14]

If continued steroid therapy is absolutely essential, yet no conceivable program of anti-diabetic therapy seems able to keep the patient from teetering on the brink of ketoacidosis, then a new approach is needed. The possibilities discussed below have a fairly reasonable experimental background, but their clinical efficiency has not been firmly established yet —mainly because in the vast majority of cases simply giving enough insulin has been all that was necessary.

One promising maneuver would be to give large doses of salicylates in expectation of lowering the requirement for steroids and for insulin simultaneously by different mechanisms. Although neither mechanism is well understood, the anti-inflammatory effect of salicylates was known to clinicians long before cortisone. The hypoglycemic effect, on the other hand, was lost and then re-discovered. In a recent study of 14 well-controlled diabetics, salicylate therapy was able to substitute for insulin completely in eight cases and to reduce the insulin requirement by 10-72 units daily in the other six. Of course, this required rather large doses, equivalent to 10 to 22 of the usual 5-grain tablets each day, and some side-effects were noted in every patient.[15] However, in the diabetic on steroids it looks like a straw well worth grasping at.

If previous in tolerance to salicylates or evidence of peptic ulceration makes such an approach seem hazardous, the physician might try phenethylbiguanide (DBI®), instead of salicylates. This compound appears to follow some sort of a dose-response relationship and to be synergistic with insulin. It

has been used alone with success in one case of diabetes associated with Cushing's syndrome.[16]

Another approach which has some experimental backing is to add testosterone, estrogen, or 17-ethyl-19-nortesterone (Nilevar®) to the regimen. Again, very little is known of their effectiveness under such conditions. But they have been shown to reduce markedly the negative nitrogen balance in both spontaneous and iatrogenic Cushing's syndrome.[17] Fortunately, there is no evidence that this combination interferes with the anti-inflammatory action of the adrenal hormones.[18] Although no good data is available on the carbohydrate metabolism of such patients, it seems likely that the improvement in nitrogen balance would necessarily be reflected by a reduction in gluconeogenesis.

Conceivably a patient might end up by taking cortisone, insulin, salicylates, DBI® and Nilevar® in maximum dosage, mortgaging his home to the pharmacy, and still manifesting hyperglycemia and impending ketoacidosis.

If this should happen, the physician must choose the lesser of two evils and reduce the dose of steroids. The watchword here should be to reduce rather than to discontinue completely for two reasons: (1) complete withdrawal of steroids is unnecessary for better diabetic control and may in fact precipitate severe and repeated hypoglycemia, and (2) sudden withdrawal might precipitate an Addisonian crisis which could go unrecognized for some time because of the coexisting diabetic and inflammatory pictures.

However, in actual practice the need for this agonizing reappraisal is very infrequent. There is practically no limit to the amount of insulin that can be given to a diabetic who needs it, and it seems unlikely that even massive steroid therapy would ever produce unlimited insulin resistance. Of course, with long term steroid therapy, an insulin requirement of as little as several hundred units per day poses serious practical therapeutic problems, not the least of which is the financial.

Problems of hormone therapy in patients with diabetes are likely to get more rather than less complicated in the future. The search for a hypocholesterolemic thyroid analogue is already partially successful; when more satisfactory compounds become available a fairly large segment of the population will probably be treated with them, and overtreated in some cases, and this segment will undoubtedly contain a large proportion of diabetic patients. Characterization of the diabetogenic propensities of these new drugs will be needed very early in the course of their study.

Human growth hormone, a potent diabetogenic preparation, may eventually be prepared synthetically and have a wide clinical use in situations in which a profound protein anabolic state is desired. For the diabetic patient it may be a two-edged sword. "Topical growth hormone" for diabetic ulcers of the feet may be one of our most valuable drugs—or one of our most misused. Only time will tell.

Glucagon has already been found to have anti-inflammatory activity; it also depresses the appetite, and there may be some as yet unknown sulfonylurea molecule which will promote glucagon release, from the alpha cells much as our current drugs promote insulin release. Such a drug might be used as an aid in weight reduction or as an anti-inflammatory agent. However, the effect of glucagon on the liver is glycogenolysis and accelerated glucose release. Increased ketogenesis is invariably associated. This could be a very dangerous drug for a diabetic patient or, more predicatably, for an obese patient who has not been carefully screened for diabetes. On the other hand, preliminary reports of combined glucagon-insulin therapy suggest a synergistic effect on glucose uptake by the tissues and some clinical usefulness on that basis. Again only time can tell.

The seafarer bailing out a leaky boat has a problem which, though serious, is not complicated; he can decide at a glance which factors will make his boat wetter and which will make it drier. The diabetic patient has an equally serious problem, and for his physician it is sometimes very complicated indeed. If hormone therapy is added to his patient's regimen he may be as much at sea as his patient unless he has reviewed his understanding of the biological actions of the hormones involved and the fascinating biochemical alterations of diabetes itself.

SUMMARY

1. While endocrinopathy or exogenous hormone therapy may affect a coexisting diabetes, for practical purposes this effect is of little significance except for the use of adrenocortical steroids in the management of inflammatory or neoplastic disease.

2. The effect of such steroids is to inhibit protein anabolism with a concomitant increased gluconeogenesis and glycogenolysis, leading to an increased hepatic release of glucose. Because of impaired fat synthesis and diversion of Krebs cycle intermediates, ketogenesis is also increased in the absence of insulin. Numerous powerful synthetic analogues of hydrocortisone are currently available and their diabeto-

genic potency appears to parallel their anti-inflammatory potency.

3. Diabetic patients should not receive such steroids unless there is a serious threat to life and health which will respond to steroids and to nothing else. If such treatment is instituted, the patient should be watched carefully with the physician ever ready to increase the dose of insulin as soon as there is any evidence of deterioration of diabetic control. This will suffice to control 99% of such patients.

4. If this fails, insulin may be supplemented by the addition of DBI, anabolic steroids or salicylates. If these measures, relatively untried at present, are unsuccessful, the dose of steroids must be reduced until satisfactory diabetic control is achieved.

5. Future large-scale use of thyroxine analogues, growth hormone, and glucagon will raise new problems for the diabetic patient and his doctor. A thorough knowledge of endocrine physiology and diabetic biochemistry will continue to be essential to the proper use of hormones in clinical diabetes.

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Stenosis of Carotid Artery in the Neck

A Cause of Certain Surgically Remediable Incipient and Actual Strokes, with a Report of 12 Surgically Treated Cases

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In approximately 10% of patients with stroke-like syndromes, there is a narrowing of the lumen of the internal carotid artery where it leaves the common carotid. Hope of cure is offered these people by surgical removal of the obstruction.

IN RECENT YEARS, it has been demonstrated conclusively that stenosis of the carotid artery in the neck, usually due to a sclerotic plaque, is the cause, in approximately 10 per cent, of the stroke-like syndrome and is amenable to surgical correction, particularly if operated upon *before* complete thrombosis of the internal carotid artery has developed to the point of a massive hemiplegia, severe aphasia or other devastating neurological signs. Leussenhop[1] states that 80 per cent of patients with intermittent transient symptoms of internal carotid insufficiency will eventually develop full-blown and permanent neurological deficits.

The syndrome considered in this paper is one of the most hopeful developments in cerebral vascular disease that has appeared in many years, particularly as it has proved to be surgically correctable in selected cases. The work of Fisher[2] leaves little doubt that carotid insufficiency in the neck is one of the important causes of cerebral vascular accidents, either overt or threatening. In 432 routine unselected autopsies in adults, Fisher found occlusion or severe stenosis of one or both of the internal carotid arteries at the bifurcation in the neck in approximately 10 per cent of cases. Furthermore, a clinical-pathological study of 45 cases of occlusion of the internal carotid artery at the bifurcation in the neck revealed that, in 85 per cent, severe neurological disturbances were produced. Also, Lofstrom, Webster and Gurdjian,[3] in 100 consecutive cases of hemiparesis or hemiplegia, found internal carotid occlusion or severe stenosis of the cervical portion of that vessel to be present in 29 cases, that is in 29 per cent. By far the most common cause of occlusion or stenosis of the carotid artery in the neck is an arterio-sclerosis plaque, which begins at the bifurcation of the artery and slowly encircles the intima and occludes the arterial lumen. It is worth noting that an arterio-sclerotic plaque at this segment of the cervical carotid artery is more common than in any other artery in the body, except the abdominal aorta. In addition, a super-imposed thrombus on an ulcer in the plaque may be the final occluding factor or hemorrhage into the plaque itself may suddenly occlude the vessel.

Fisher further states that if there is any segmental stenosis or occlusion of the carotid artery in the neck, there is much less likelihood of arterio-sclerotic disease in the intracranial branches of the carotid artery. In all of the 12 cases we have operated upon to date (which will be presented in some detail below) for removal of a plaque in the cervical carotid arterial system, arteriograms have shown fully patent intracranial vessels or operation probably would not have been done. It is important also to have archograms showing the subclavian, vertebral and innominate arteries and their origin, as well as the intracranial vessels, in each individual case, to be certain that the lesion operated upon in the neck is indeed, so far as can be determined, the important and significant arterial obstructive lesion.

De Bakey[4] has reported a similar situation in the

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iliacs and femorals distal to occlusions of the abdominal aorta, i. e., with lower aortic (abdominal) occlusion, serious obstructive disease in the more distal vessels (femorals, popliteal) is unusual.

Other causes of occlusion or stenosis of the carotid artery in the neck are trauma, dissecting aneurysm of the aorta, arterio-sclerotic occlusion of the carotid or innominate artery as they arise from the *arch of the aorta,* saddle emboli from the heart, arteritis and extrinsic pressure on the carotid by tumors, scar tissue from thyroid surgery, or infections in the neck. The sequence of events that follows occlusion or severe stenosis of the cervical portion of the internal carotid artery has been clearly outlined by Francis Murphey,[5] a neurosurgeon, of Memphis. At the present time, he believes, from his extensive experience in surgery of this vessel, that these lesions may be classified generally as (1) ischemic, (2) embolic or (3) thrombotic.

Whether or not occlusion or stenosis of one internal carotid artery (without resulting embolus or propagating thrombus) will produce symptoms, depends to a considerable degree upon the adequacy of the collateral circulation in the head, as well as the patency of the other (opposite) carotid and vertebrals, and the stability of the blood pressure. Alpers[6] and his colleagues, in important anatomical studies on hundreds of postmortem brains, concluded that in only about 50 per cent of cases is there a truly normal circle of Willis. Alpers also stressed that what develops in the brain after internal carotid artery occlusion may be greatly affected by the condition of the vertebral-basilar vascular segment, and both segments, in turn, are very dependent on the condition of the posterior communicating arteries. He also stressed that anomalies of the circle of Willis are very common and involve many patterns. Anatomical variations in the circle of Willis are important in occlusive vascular disease for the establishment of compensatory blood flow through the circle itself. In brain softenings as seen in postmortem cases, a normal circle of Willis was seen in only one-third of the brains studied. Alpers found that in the case of internal carotid artery occlusion, compensatory blood flow is established by the following five channels: (1) through the circle of Willis, from the opposite internal carotid artery, (2) through the external carotid artery of the side of occlusion by its various branches into the ophthalmic artery, (3) from the vertebral system through the circle of Willis, (4) through the external carotid artery into the vertebral system and (5) through the ipsilateral anterior and middle cerebral arteries. The success of surgery in any individual case of plaque removal from the carotid artery in the neck is certainly as much dependent on the fortunate patency of the circle of Willis and the presence of one or more of these compensating mechanisms, as it is upon the rapidity and skill of the surgery itself.

If the blood pressure drops in cases of carotid artery stenosis in the presence of inadequate collateral circulation, transitory or permanent cerebral ischemic symptoms may develop. Should further stenosis of the carotids and/or vertebral arteries occur, a state of chronic ischemia may lead gradually to progressive senility, psychotic changes and/or motor or sensory deficits and speech disturbances or other gross neurological deficits. In bilateral stenosis of the cervical carotid arteries, marked mental changes are occasionally noticed. Following occlusion of the internal carotid artery in the neck, the most common finding is a thrombus which forms distal to the plaque and which may propagate upward to occlude the middle or anterior cerebral arteries, or a portion of the thrombus may break off from movement of or pressure on the neck and float upward as an embolus, occluding major or minor vessels in the cerebral hemisphere above. There is also good reason to believe that mural thrombi form just distal to the point of severe carotid stenosis and break off as emboli, which may also occlude large or small distal vessels. The possibility of such catastrophies occurring make it seem more desirable to remove surgically the arterial stenosis caused by the plaque, than to utilize a shunt procedure, as is done in some clinics, which may work perfectly well so far as restoring blood to the internal carotid artery above the occlusion, but does not deal with the underlying pathological lesion itself, which can be the source at any time of a thrombus or an embolus even though the shunt was placed above the point of carotid stenosis.

Occlusion or partial stenosis of the common carotid artery in the neck on one or both sides can produce a readily observed and varied symptomatology, which ranges from mental deterioration through "strokes" to mimic brain tumor, brain hemorrhage, multiple sclerosis and the whole gamut of so-called degenerative nervous diseases. Strangely enough, major convulsive seizures have been rather rare in most cases of carotid occlusion reported to date. Fortunately, the onset is usually heralded by prodromal symptoms, such as transient numbness of the face, arm or hand, slight weakness of the hand or leg, momentary apha-

sia, a feeling as though the patient might faint, etc. It is at this point that careful examination of the carotid arteries in the neck for stenosis should be made, as removal of the sclerotic plaque *then* may well result in dramatic permanent improvement in the patient's cerebral circulation and general neurological status, and also prevent further complications from such a lesion if left *in situ*. On the whole, demonstration of reduction in intra-ocular arterial pressure by *ophthalmodynamometer studies* and diminished or *absent pulsation of the carotid artery as palpated through the pharynx* are the most reliable signs of pathological and significant occlusion of the internal carotid artery in the neck. Palpation of the carotid artery in the neck, externally, is rather dangerous when it is done on the opposite side, and bruit is not too reliable in the neck on the side of the lesion, but is much more significant when found on the side *opposite* the *suspected stenosis*. Unusual head pains and even facial pains have been reported in well documented cases accompanying early or threatening thrombosis of the carotid artery in the neck.

Luessenhop described four types of onset of stenosis of the carotid artery in the neck. (1) *Rapid and severe,* with neurological deficit reaching the peak almost immediately or not later than 48 hours, with a high initial mortality, a very low incidence of worsening after onset and a fair degree of substantial recovery. (2) *Gradual or spasmodic,* with neurological deficit of more gradual development which did not reach fully intensity in less than 48 hours, but more frequently in a week to a month, or even later. In many cases the initial symptoms waxed and waned and occasionally subsided for protracted periods. This group showed increased incidence of worsening. (3) *Intermittent,* with rapidly recurring and reversible neurological manifestations, which in many cases were subjective, such as numbness of the face or fingers, weakness in one arm, dysphasia lasting for a few minutes. In this group it was found that by the end of one year *80 per cent of these patients,* which were typified in many of our cases reported in this paper, were (if not operated upon) permanently afflicted with neurological deficits. (4) *Associated symptoms,* in whom the initial signs and symptoms were seizures, fleeting blindness, headaches, syncope or psychic changes. These symptoms, except for the fleeting blindness, may persist for years before permanent lateralizing signs supervene.

Once massive occlusion of the middle cerebral artery (with aphasia and hemiplegia of a gross degree) has developed, with or without coma, the prognosis is not nearly so good (although still satisfactory in an occasional case) as in those patients who are only partially occluded at the time of operation. With this statement, there is universal agreement by all surgeons.

So far as is known, there are no purely clinical neurological findings upon which one can base a diagnosis of internal carotid artery stenosis or occlusion in the neck with absolute certainty. Some investigators believe that it can be done without arteriography as a rule, fearing the occasional complication of arteriography. In our clinic, we believe that arteriography is *a sine qua non* for absolute precise localization of these lesions in the carotid artery in the neck or elsewhere, and it is carried out as a preliminary diagnostic procedure in all of our suspected cases.

However, certain additional maneuvers, together with the history and neurological findings, may allow positive diagnosis in many cases, even before arteriography. Palpation of the artery in the neck may reveal a complete lack of pulse in the entire carotid on one side and one may even feel the pulseless artery reduced to a firm cord. Particularly is this helpful when it is found in the pharynx, intraorally. Auscultation may be of value in a high grade stenosis (but not in complete occlusion) in which one may hear a typical systolic bruit over the bifurcation. Another maneuver of considerable importance, which should be carried out with caution, however, is that described by Gurdjian, Webster, et al[7] of compression of the opposite common carotid artery. After 15 or 20 seconds, syncope or even a convulsion may occur if there is now bilateral carotid insufficiency. Care should be taken also during this maneuver to compress the common carotid *below the carotid sinus* at the bifurcation, because hypersensitivity of the sinus may confuse the issue and produce syncope. It must be remembered, however, that manual compression of the carotid artery uniformly produces syncope in patients with anterior cerebral artery occlusion alone, whereas, syncope does not occur on carotid compression in patients who have occlusion of the middle cerebral artery alone. It has also been determined that the use of the ophthalmodynamometer, with which the blood pressure in the retinal artery can be measured, is very helpful in these cases. It is typically found definitely or markedly reduced in positive cases of carotid artery occlusion in the neck or elsewhere.

It is well known that if one carotid artery is oc-

cluded, pressure above the point of occlusion and in its branches is usually reduced 40 to 50 per cent. The finding of a significantly reduced blood pressure in the retinal artery on the side under suspicion is suggestive of occlusion or severe stenosis of the carotid, but of course does not precisely localize the site of obstruction in the artery.

The frequency of marked personality changes and so-called psychotic reactions in the middle and older aged group with cervical carotid stenosis leads us to urge that psychiatric evaluation of middle aged or elderly patients in the future should certainly include careful angiographic study of the carotid circulation on each side of the neck, as our case #1 (see below) illustrates.

It is our present impression that every patient who had a cerebral vascular accident, which apparently involves the carotid circulation, should have bilateral carotid arteriography as soon as compatible with his condition. If the lesion is not found in the carotid circulation and reasonable doubt exists as to its location, vertebral arteriography should be carried out also. Even when carotid arteriography is carried out for presumed intracranial arterial disease, such as an aneurysm of the circle of Willis, the carotid artery bifurcation in the neck should also be visualized on all the x-ray films in all cases when any arterial disease in the head or neck is suspected and when any surgery on any part of the carotid vascular tree is anticipated. Finally, the upper thorax should also be visualized in these angiographic films to show the arch of the aorta and the innominate and carotid and subclavian vessels coming off of it, as occasionally arterial stenosis is found of surgical importance in such an area requiring primary operative attack by the vascular surgeon. Furthermore, it has been emphasized recently[9] that approximately 10 per cent of patients who were studied under a presumptive diagnosis of cerebro-vascular disease, were eventually proved to have surgically important intracranial mass lesions, such as tumors or subdural hematomas.

Our present method of operating on these cases of carotid stenosis in the neck is as follows:

In individuals suspected of having carotid stenosis, especially those who have a reduced pulsation of the carotid in the neck, a bruit or thrill at the site of bifurcation, and whose retinal artery pressure is definitely reduced, as shown by ophthalmodynamometer readings, *an arteriogram is carried out.* If significant cervical carotid stenosis is seen on these films, operation is planned and may even be precipitated or made urgent by the rapid development of symptoms after arteriography, as in a recent case of ours (see case #7, infra) in which the arteriogram was done to rule out a temporarily "silent" carotid stenosis at the bifurcation, to be followed (within 24 hours) by frequent attacks of weakness and numbness of the left side of the face (the arteriogram having been done on the right side) and which required urgent operation to remove successfully a large calcified plaque from the bifurcation of the carotid artery on the right side.

Apparently (and we have noticed this in other cases) the actual performing of the arteriogram itself may precipitate changes either from the spasm of the artery or perhaps the breaking off of a small embolus from a plaque incident to the arteriography procedure; this therefore may require urgent operation in a day or two or even sooner, after arteriography has been carried out in a more or less routine leisurely fashion.

Local anesthesia is now insisted upon, unless the patient is extremely restless and uncooperative, as we like to test the ability of the patient to move the opposite arm and leg on command, the ability to speak if the left carotid artery is being operated upon in right-handed individuals, and so forth, for a minimal period of 10 minutes when the internal carotid is completely, although temporarily, occluded with a clamp before it is opened for removal of the plaque.

A cervical plexus block with novocaine is ideal if carried out by an expert anesthesiologist, and every effort is made to *keep the blood pressure from dropping appreciably* by making certain that the head is low at all times during the operative procedure.

A small amount (45 milligrams) of heparin is given intravenously as the carotid artery is incised (preferably transversely to prevent narrowing at the time of suture) to remove the plaque. At present, we do not heparinize the patient otherwise, before or after the procedure, as is done in some clinics. We also do not use hypothermia, as to do so renders the patient unconscious and again neurological testing during the preliminary temporary occlusion of the vessel cannot be carried out. Also, hypothermia tends to lower the blood pressure, which is always undesirable during an operation for carotid stenosis. We consider this extremely important (the conscious state of the patient) for if occlusion of the internal carotid artery for a few minutes (preliminary to incision of the artery) results in aphasia or weakness of an arm or leg, obviously it cannot safely be oc-

cluded during the operative procedure *without a shunt being in force at the time.* A shunt, of course, is perfectly feasible and we have it ready now at the time of surgery so that it might be utilized if temporary clamping of the vessel is not well tolerated by the patient. In performing arteriotomy using some type of shunt procedure, extending from the common carotid artery below the point of stenosis to the internal carotid artery above that point, it is necessary to provide continuous blood flow around the stenosis during the operative procedure. In practically all cases we find that when one occludes the common carotid and also the internal and external carotid arteries with clamps for a period not exceeding 14 or 15 minutes, (provided preliminary testing by occlusion for 10 minutes or more with a clamp does not produce gross neurological deficit) usually no serious or permanent neurological penalty will result if the blood pressure is not allowed to drop very appreciably during the operative procedure.

The following 12 cases, presented in some detail, were operated upon recently in our clinic for stenosis of the cervical carotid artery due to an arterio-sclerotic or cholesterinized plaque:

Case No. 1 (our first surgical case operated upon by Residents J. Botton and I. Rinaldi) was a 63 year old right-handed, white female, who was admitted to the Medical College of Virginia Hospital on January 26, 1959. She had demonstrated progressive mental deterioration, characterized by gradual melancholic depression, bout of anxiety, episodes of hallucination and aggressive behavior and was in the psychiatric department for evaluation at the time of our surgical intervention. In one of these episodes she had seized a butcher knife and expressed a desire to kill her husband. In the year previously (1958) she had developed a left-sided hemiparesis involving the face and arm, which had gradually improved, leaving only an occasional episode of hypoesthesia and paresthesia over the tips of the fingers of the left hand, without motor deficit.

Neurological examination revealed only a very slight left central facial palsy; the pulse of the right common carotid artery was markedly reduced on palpation in the neck. A thrill was palpable and a murmur or bruit could be heard on auscultation of the right lateral cervical region. The pulses of the external carotid branches (facial and superficial temporal arteries) were strong bilaterally. No carotid compression test on either side was made at this time, but later on it failed to increase the hypoesthesia of the left hand, nor did it provoke fainting or blindness in either eye. Skull x-ray films disclosed no abnormality. The electro-encephalogram showed considerable slowing over the right cerebral hemisphere when the left common carotid artery was being compressed. No slowing occurred when the right common carotid was being compressed. An arteriogram of the right common carotid artery showed stenosis of the bifurcation of that vessel in the neck (Fig. 1). On February 4, 1959, the first of our

Fig. 1. (Case 1) Preoperative arteriogram, lateral view, showing segmental stenosis of proximal portion of the right internal carotid artery (arrows).

series of operative attacks on cervical carotid stenosis was carried out, now totaling 12 cases (see below). Thromboendarterectomy was performed under cervical block anesthesia (Figs. 2, 3, 4). A large plaque was removed at the carotid bifurcation without undue incident, after placing a Potts clamps (below the lesion) on the common carotid artery and umbilical tapes on the internal and external carotid arteries above the lesion. Excellent back flow was obtained from both the internal and external carotid arteries. In this first case, complete occlusion of carotid artery

Fig. 2. (Case 1) Operative field showing the bifurcation of the right common carotid artery (cc) the external (ec) and internal (ic) carotid arteries. The superior thyroid artery and the descending branch of the hypoglossal nerve are also visible (arrows).

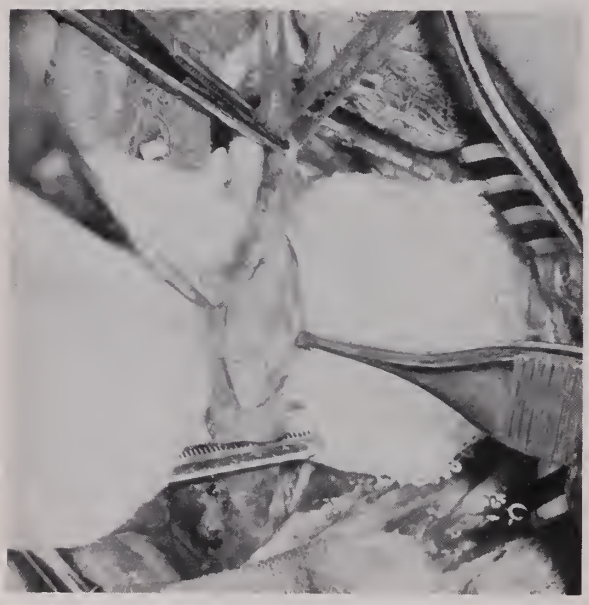

Fig. 3. (Case 1) Shows opened bifurcation of the common carotid artery with endarterectomy and plaque removal about to begin, Potts clamp occluding common carotid artery.

blood flow was carried out for a period of 25 minutes, no hypothermia being utilized. Fifty milligrams of heparin sodium was given intravenously at the beginning of the arteriotomy. Toward the end of the procedure, the patient developed a slight left sided hemiparesis, most marked in the arm. This lasted 20 minutes and by the time the operation was complete the hemiparesis had entirely disappeared.

Fig. 4. (Case 1) Shows suture of the wall of the external and common carotid arteries after removal of the large cholesterinized plaque.

Postoperatively, the patient did well, both with respect to cerebro-vascular circulation and the absence of neurological signs and further impairment by her psychosis. No neurological deficit had developed at the time of discharge and the preoperative facial weakness on the left side also disappeared. A follow up carotid arteriography was carried out on April 4, 1959, exactly two months after the operation, and showed an excellent restoration of blood flow in the carotid bifurcation on the right side (Fig. 5). The patient has continued to do well in that there has been an absence of neurological deficit after operation, and also improvement in her psychosis. The patient was last seen on June 8, 1960, and was then in excellent condition, 16 months postoperatively, except for hypertension (180/110). No neurological deficits have developed to date.

Case No. 2 was a 67 year old white female, the wife of a physician, who had noticed transient attacks of weakness and numbness of the right face and hand, with momentary aphasia for several months before admission. She was admitted to the Medical College of Virginia Hospital on August 17, 1959, and discharged improved on September 26, 1959. It was thought that she very possibly has insufficient carotid circulation in the left side of her neck, as one could not feel the left internal carotid artery pulsating, or very feebly at most, above the bifurcation, whereas it could be palpated easily on the right side at all levels. There was slight weakness of the grip of the right hand. A left carotid arteriogram,

Fig. 5. (Case 1) Postoperative arteriogram of the right carotid system showing complete restitution of the lumen of the internal carotid artery (see Fig. 1 supra.).

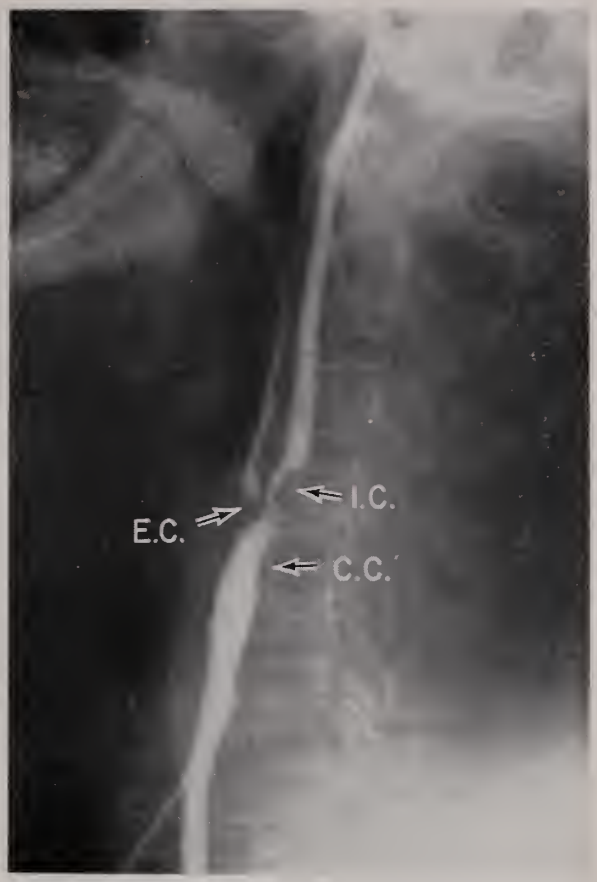

Fig. 6. (Case 2) Lateral preoperative arteriogram of the cervical carotid system on the left side, showing extensive stenosis at the level of the bifurcation and proximal external and internal carotid arteries (arrows).

using 50 per cent hypaque under local anesthesia, showed marked narrowing of the bifurcation of the common carotid artery on the left side indicating marked cerebro-vascular insufficiency in the left cerebral hemisphere, resulting from this lesion, probably a plaque (Fig. 6).

At operation, done in collaboration with Dr. Henry Royster, during which the common carotid and the internal and external carotid arteries were occluded completely for 13 minutes and heparin utilized intravenously with local anesthesia and no hypothermia, a large plaque was removed from the bifurcation (on the left side) of the common carotid artery. She tolerated the procedure well, but was so markedly sedated preoperatively by a combination of scopolamine, demerol and nembutal that she could not be aroused at all during the operative procedure and was found to have a moderately severe hemiparesis on the right side in the recovery room an hour or more postoperatively, with aphasia also. This steadily improved, however, and under the expert guidance of Dr. Richard Kirkland, who instituted anticoagulant therapy with coumadin, her speech and motor power improved markedly before discharge on September 26, 1959. She has been seen on several occasions since that time and is now well, with respect to weakness of the right arm and leg. Her speech is also entirely normal. She was last seen on June 8, 1960, almost 10 months postoperatively, and there is now no neurological deficit.

The chief lesson learned from this case is that the patient should not be sedated heavily preoperatively, so that he can be aroused and spoken to during the operation and motor power and speech properly tested. In subsequent cases, only sodium phenobarbital or other mild sedation was given with a cervical plexus block with procaine as the basic and the only anesthesia in most of these patients.

Case No. 3 was a 48 year old colored male, a

known alcoholic, who was admitted to the hospital on October 30, 1959, with the history of a fall eight days prior to admission. Allegedly, the patient had been unconscious for an undetermined period of time. A few days later, he developed speech difficulty which became more severe and associated with progressive right sided weakness.

On admission, the patient was able to talk, but his speech was very slurred and at times unintelligible. A right hemiparesis was present, most marked in the branchial distribution. The right muscle stretch reflexes were hyperactive.

Shortly after admission, a left carotid angiogram was done under local anesthesia. The films showed complete occlusion of the internal carotid at its origin from the bifurcation of the common carotid artery. Endarterectomy was done under cervical novocaine block and a large plaque was removed. A thrombus was present in the internal carotid and was suctioned out, without obtaining back flow. Flow in the external carotid was excellent.

Postoperatively, the patient did well, with gradual improvement being observed. He was discharged about one month after admission with only mild weakness in the right hand and fingers and very mild dysphagia. No follow up was available.

Case No. 4 was a 47 year old colored female, right-handed, who was admitted on December 21, 1959, with a history of gradual onset of weakness of the right leg about five days prior to admission. Some weakness had been present in the right arm, at the onset, but it had gradually cleared in a few hours. The following day, however, the right arm again became weak and the patient noted also the onset of speech difficulty of the motor type. The right leg showed some improvement in strength before admission. There was nothing significant in her past history.

On admission, the patient showed severe proximal flaccid paralysis of the right upper extremity. There was moderate hesitancy in speech. There was no facial weakness present, no motor weakness detectable in the right lower extremity, and no abnormal reflexes were elicited. Some mild euphoria was also noted.

The carotid, superficial temporal and brachial pulses were strong and equal bilaterally and no bruit or thrills were present. Blood pressure was 130/90 in both arms.

Bilateral common carotid angiograms were done under local infiltration anesthesia, using 50 per cent hypaque, uneventful. The films showed mild narrowing of the proximal portion of the left internal carotid artery. Under cervical block anesthesia, endarterectomy of the bifurcation and the internal carotid artery was performed, on December 31, 1959. A large plaque was easily removed. The entire procedure, with the common, internal and external carotid arteries clamped, took 11 minutes. No neurological deficit developed during the period of complete occlusion.

Rapid and progressive improvement was already noted on the day following the operation and continued until the patient was discharged on January 10, 1960. Follow up observations have shown no clinical evidence of neurological deficit.

Case No. 5 was a 71 year old white male, who was admitted on January 7, 1960, with the history that three to four weeks prior to admission he had developed visual disturbance which has gradually subsided. About one week before admission, the patient had become aware of left temporal headache and moderate weakness of his right hand. From then on a rapid mental deteriation had ensued.

On admission, he was found to be severely dysphasic with both a motor and receptive component. Incontinence of urine and feces was present. Confusion and lack of cooperation made impossible the testing of motor power. Deep tendon reflexes were increased bilaterally. The carotid pulses were equal and strong.

Bilateral carotid angiograms showed extensive and marked narrowing of the left internal carotid at its origin from the common carotid artery. Endarterectomy was performed on January 13, 1960, the period of complete occlusion being 9.5 minutes.

Postoperatively the patient has done quite well. His speech has improved considerably and the mental confusion has completely disappeared. No gross neurological abnormality is now detectable.

Case No. 6 was a 49 year old white male, who was admitted on January 5, 1960, with the history of suddent onset of delusional ideas and hallucinations. The memory was markedly impaired. Of interest is the past history, in that he had had a left hemiplegia in 1949, which left him with a residual spasticity of the left limbs. The patient at that time was found to be hypertensive and a bilateral thoracolumbar sympathectomy had been performed, with successful lowering of the blood pressure.

On admission, besides his mental status, the patient presented only a residual left sided spasticity and weakness, with some slurred speech. The carotid pulses were strong and equal.

Bilateral carotid angiograms showed moderate narrowing of the bifurcation of the right common carotid artery, with extension into the proximal portion of the internal carotid artery. On January 12, 1960, a right endarterectomy was done, with a total occlusion period of 9.5 minutes. No significant change in his mental status occurred.

On February 9, 1960, a postoperative angiogram was obtained. It showed full patency of the arteries in the neck, with only a very mild ectasia at the level of the bifurcation and proximal internal carotid.

Case No. 7 was a 70 year old white female (left-handed) who was admitted on January 23, 1960, because of severe left retro-orbital pain and diplopia for a few days prior to admission. Dizziness had also been present. Of interest in the past history is the fact that since October 1959 she had been having intermittent spells of a tingling sensation in the *left hand.* The patient had had hypertension for many years. The neurological examination was entirely negative. Bilateral carotid bruits and thrills were present.

Bilateral carotid angiograms showed the presence of a large plaque at the level of the bifurcation of the left common carotid artery, extending into the proximal internal carotid. On the right, severe narrowing of the internal carotid was seen. Following the right sided angiogram, which had been done after the left one under local anesthesia, episodes of numbness of the left side of the face, left hand and arm began to occur. Mild dysarthria was also noted; the patient was left-handed. Very mild motor weakness of the left side also became apparent. Emergency exploration of the right sided carotid bifurcation was done under cervical block. By the time the skin incision was being made, the patient had a frank left hemiparesis. Endarterectomy was performed in 12 minutes, without any additional neurological deficit resulting. Shortly after surgery was completed, the only neurological deficit noticeable was slight weakness of the left hand, which gradually improved so that at the time of discharge, on February 8th, only weakness of the left thumb was present.

Case No. 8 was a 77 year old white female who was brought to the emergency room on February 24, 1960, unconscious, with Cheyne-Stokes respiration and blood pressure of 160/70. The only history available was that she had been found in this condition. On admission, a left hemiplegia was present. A right Horner's syndrome was also seen and the left temporal pulse could not be felt. The carotid pulses in the neck were present bilaterally and equal.

A right carotid angiogram was done under local anesthesia, with marked stenosis of the bifurcation of the common carotid artery being demonstrated, extending both into the internal and external carotids. Endarterectomy was performed with the removal of a very large stag horn-like plaque. Very poor back flow was obtained from the distal internal carotid artery. The time of complete occlusion was 14 minutes.

Immediate improvement in the left sided motor weakness and confusion became apparent after surgery. The patient began to respond more actively and could move all her extremities quite well. However, on February 27th, two days after surgery, she developed bilateral bronchopneumonia and rapidly deteriorated and died.

Case No. 9 was a 59 year old white male, who was admitted on February 2, 1960, with the history of loss of consciousness and generalized seizures. These seizures were recurrent and after the last one, the patient was found to have a right hemiplegia and marked mental confusion with motor aphasia.

He had been admitted to the hospital many times in the past because of polycythemia vera, had been treated in 1953 with radiocative phosphorus 32, and aortic and bilateral common iliac artery vascular grafts, to correct arterio-sclerotic involvement of these vessels, were inserted successfully in October and November 1957. On admission, the left carotid pulse was weaker than the right and a bruit was audible over the left-sided bifurcation.

A left common carotid angiogram was done and showed marked narrowing of the bifurcation, extending into the internal carotid artery. On February 26th, under cervical novocaine block, a left endarterectomy was performed with an occlusion time of 10.5 minutes. Almost immediate recovery occurred with no neurological deficits evident from the day after operation.

Case No. 10 was a 56 year old colored female, who was admitted on March 5, 1960, with the history of sudden loss of consciousness followed (upon regaining consciousness) by a left sided motor weakness, which rapidly disappeared (by the time she arrived in the hospital).

The past history revealed the occurrence of a stroke, with resulting left sided weakness, five years prior to admission. This weakness had subsided completely in one month. The patient had been hypertensive for several years. On admission, she showed no neurological abnormality whatsoever. The

blood pressure was 220/110 in both arms and glaucoma of the left eye was present. The day after admission a right carotid angiogram showed severe narrowing of the internal carotid and of the bifurcation also. Endarterectomy was performed with a 14 minute occlusion time and with no evidence of neurological deficit ensuing after the occlusion and operation. A large plaque was easily removed. Except for some transient mental confusion, which occurred the day after surgery, the patient made an uneventful recovery. She was discharged on March 26, 1960, with no evidence of neurological deficit, and was last seen in the clinic on April 6, 1960, with no disability at that time.

Case No. 11 was a 67 year old white male with a history of sudden onset of slurred speech and "drawing of the face to the right;" he was admitted on March 14, 1960. On admission, the blood pressure was 240/140 in both arms.

In the past, the patient was said to have had three strokes, but the informant was not certain about the time and exact nature and side of the three strokes. No motor deficit was present on admission. A right Babinski was elicited. The left pupil was slightly larger than the right. The speech was slurred. Bilateral carotid angiography disclosed marked narrowing of the left carotid bifurcation, extending into the external and internal carotids. Left-sided carotid endarterectomy was performed under general anesthesia (because of lack of cooperation) with 14 minutes of complete occlusion (Figs. 7, 8).

Fig. 7. (Case 11) Typical surgical specimen of the occlusive lesion showing the "cast" of the bifurcation of the common carotid artery, the internal and external carotid arteries and the beginning of the superior thyroid artery.

Fig. 8. (Case 11) Cross sections of the specimen shown in Fig. 7 (above), showing almost complete occlusion of the proximal internal carotid artery (ic), thus accounting for the severe neurological deficit that these lesions can produce.

Postoperatively, the patient showed no gross neurological deficit, except perhaps for very mild weakness of the right hand and fingers. On March 27, five days after surgery, he began to show signs of mental deterioration, still without motor weakness. Slowly, however, he lapsed into coma and died on April 1, 1960, 10 days after operation.

Case No. 12 was a 51 year old male; he was admitted on the Medical Service in April 1960, with a history of transient weakness of the right hand which had occurred in June, 1959. In August, 1959, he had had a sudden onset of slurred speech, from which he recovered in about one week. In November, 1959, the patient developed speech difficulty again, accompanied by generalized weakness and fatigue. At this time, he was also found to have protrusion of the right eye. Since January, 1960, the patient has had some impairment of memory and also some clumsiness of both hands. On admission, he was found to have mild ataxia and a positive Romberg sign. His speech was slurred and there was very mild weakness of the right side of the face and the

right arm, with a positive Babinski being present on the right side. Furthermore, the patient was hoarse and had weakness of the right trapezius and sternomastoid muscles. The tongue deviated to the right and there was weakness of the right soft palate. There was also a definite right-sided exophthalmos. The blood pressure was 180/100 in both arms. A loud bruit was audible at the level of the bifurcation of the left carotid artery. A study of his thyroid status disclosed marked hyperthyroidism which was treated with I 131. A lumbar puncture revealed normal spinal fluid.

He was readmitted on May 19, 1960 on the Neurosurgical Service. Left subclavian, left carotid and right carotid arteriograms were carried out. They showed marked narrowing of the origin of the bifurcation in the left cervical carotid artery and slight narrowing at the origin of the left vertebral artery. On May 27, 1960, the left carotid arterial system in the neck was explored. The pulse appeared to be good throughout the length of the exposed vessel. *No definite plaque could be felt with the palpating finger.* However, an arteriotomy incision was made at the level of the bifurcation and a large plaque was found occluding approximately 75 per cent of the internal carotid arterial lumen (Figs. 9, 10). Thrombo-endarterectomy was carried out, the period of complete vascular occlusion being 10.5 minutes. The procedure was performed under local (novocaine) anesthesia. Postoperatively, the patient has done well in every respect.

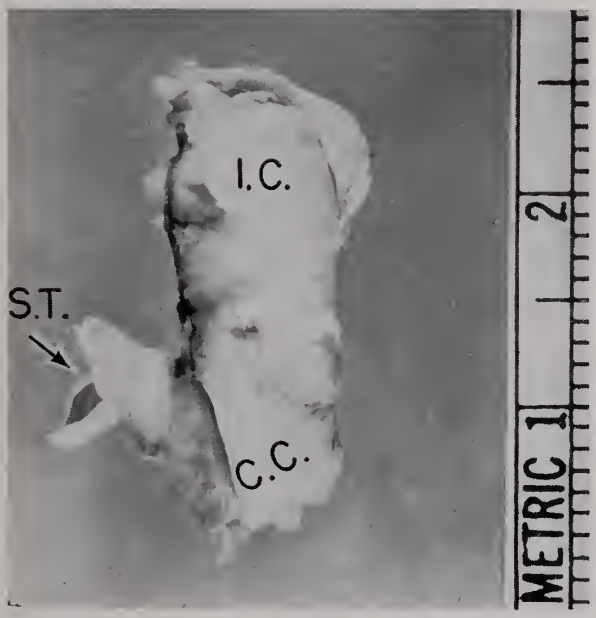

Fig. 9. (Case 12) Another typical surgical specimen showing "cast" of extremely thickened intima removed from the proximal internal carotid artery, extending for a short distance into the external carotid artery as well and superior thyroid artery.

Fig. 10. (Case 12) Cross sections of the lesion shown in Fig. 9 (above) demonstrating the extensive proliferation and degeneration of the intima with severe reduction of the lumen of the internal carotid artery. This specimen shows the ease with which an embolus or thrombus could form from this parent lesion.

CONCLUSIONS

Twelve surgically treated patients are presented with carotid stenosis in the neck from our clinic, demonstrating the characteristics of a selected group of *surgically favorable arteriosclerotic lesions of the cervical carotid arteries,* particularly in the nature of stenosis, rather than complete occlusions. If the progress and significance of symptoms is *properly and promptly recognized* in the individual case, and the lesion demonstrated angiographically and surgically removed before complete occlusion of the carotid has developed in the neck with massive hemiplegia or aphasia, or both, an excellent result in restoration of cerebral circulation can be achieved in many cases, often with *gratifying long term beneficial effects,* as demonstrated by most of these patients (herein reported) and by many others now recorded in the recent medical literature from different clinics throughout the world.

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Frozen Foods Safe, Nutritious

Frozen foods handled according to good commercial practice are "safe, nutritious, and flavorful," according to a report in the October 29th Journal of the American Medical Association. However, studies showed frozen precooked foods, such as poultry pies and prepared dinners, "offer ideal conditions" for contamination.

In a report to the A.M.A. Council on Foods and Nutrition, Horace K. Burr, Ph.D., and R. Paul Elliott, M.S., Western Regional Research Laboratory, U.S. Department of Agriculture, Albany, Calif., said:

"The inherent protective mechanisms found in frozen raw meats, fruits, and vegetables are not present in frozen precooked foods of a moist, bland, neutral nature, such as poultry pies and prepared dinners. Few incidents of food poisoning have been reported. . . .

"Theoretical possibilities of outbreaks, however, are inherent in these precooked foods. They often are contaminated with bacteria in the food plant after they are cooked and offer ideal conditions for bacterial growth.

"Thorough heating of a precooked food by the housewife always is advisable."

The authors pointed out that firms with mass production and laboratory control can maintain low bacterial levels. In the past 10 years, competition has eliminated many smaller firms which used kitchen methods without laboratory controls.

Many bacteria are killed in the freezing process or in subsequent storage. Food poisoning organisms usually cannot grow at temperatures maintained in an ordinary household refrigerator. Therefore, any microbial growth in foods held at 40 degrees Fahrenheit or below will cause spoilage but will not endanger consumer health.

The studies also showed that frozen foods were "remarkably sensitive" to temperature increases.

"Whereas most chemical reactions are 20 to 35 per cent more rapid when the temperature rises 5 degrees Fahrenheit, certain deteriorative reactions in frozen foods may double, triple, or quadruple their rates with such a temperature rise."

As a means of improving the quality of frozen foods reaching the consumer, the researchers said the Association of Food and Drug Officials of the United States is developing a frozen food handling code. Meanwhile, nine industrial associations, representing processors, transportation companies, distributors, and retailers, are collaborating in the development of voluntary standards for industry practice.

Improved Distensibility and Visualization of the Stomach and Duodenal Bulb

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ALVIN WILLIAM FINESTONE, M.D.
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This simple and safe procedure increases the diagnostic accuracy of the upper G. I. series.

DOUBLE CONTRAST EXAMINATION of the stomach and duodenum is a necessary part of a complete gastro-intestinal series. Determining the degree of distensibility and improving the visualization of these organs should be *Routine*. In 1956, Freidenfelt[1] described a double contrast method for examination of the esophagus. His technique was particularly applicable to strictures of the esophagus.

Routinely, we use a powder technique. The powder consists of equal parts of sodium bicarbonate and tartaric acid. Water, upon contact with this powder, forms carbonic acid and carbon dioxide gas. Following the mucosal relief films, several additional ounces of barium are administered and the stomach and duodenal bulb are observed and spotted in this phase.

In the upright position the patient receives ¼ to ½ teaspoonful of powder (placed on the tongue) with 1 ounce of water (water should be kept to a minimum). The quantity of powder given depends on the amount of air already present in the fundus of the stomach. The powder dissolves more readily in water than in the barium meal and conflicting air bubbles in the stomach are reduced to a minimum.

Several additional ounces of barium solution are ingested and double contrast study follows, with spot films taken in multiple projections. Bucky films of the patient in the standard or modified positions complete the examination. Other views are taken according to fluoroscopic findings.

The method is practical. The powder is readily available and inexpensive. The examination is easily carried out. Most patients retain the liberated gas merely upon advice not to eructate. Changing the position of the patient readily moves the gas to the desired part of the stomach.

We have good control of the degree of distension. With increasing quantities of powder, there is a proportional increase in the amount of gas. The examination is not unpleasant. Approximately two minutes are added to the routine fluoroscopic examination.

A definite diagnosis will often be made at the initial examination.

DISCUSSION

The radiological study is the chief method for the establishment of pathology and exclusion of disease processes in the stomach and duodenum. The stomach may be completely negative, borderline or pathognomonic. We have reduced our number of false positive diagnoses through routine use of this powder.

The demonstration of a large and irregular filling defect with mucosal destruction does not present much difficulty in the diagnosis of carcinoma of the stomach. The findings of a crater, relative loss of distensibility of the gastric wall, narrowing of the antrum, and irregular mucosal folds are suggestive of carcinoma, but are also seen in benign disease.

The cascade type stomach obscures important areas. The stomach under the ribs is inaccessible to palpation. The fundus and cardia are notoriously difficult areas to examine satisfactorily.

This method will check and confirm distensibility of the stomach and improve visualization of the stomach and duodenum. Fundal lesions are more readily apparent. The *extent* and *location* of the pathological process is accurately delineated. Exact localization of ulcers in the base of the duodenal bulb, pyloric channel and pre-pyloric region has been more readily accomplished.

A narrowed antrum, possibly due to spasm, can be distended with gas and the mucosal folds checked for ulcerations or malignant infiltration. Once a spastic antrum has been distended and dilated with

gas, one can be more confident in ruling out a malignant process.

The surgeon is better informed preoperatively concerning the extent of pathology in the stomach. Distensibility above and below the malignant lesion indicates resectability. Follow up examinations of healing pyloric and pre-pyloric ulcers demonstrate improved distensibility and visualization of these areas. An eccentric pyloric channel is more clearly demonstrated. There is improved visualization of intraluminal masses with or without ulceration. Some cases will present with infiltration of the stomach wall without intraluminal extension. The powder technique in these cases may well show loss of distensibility.

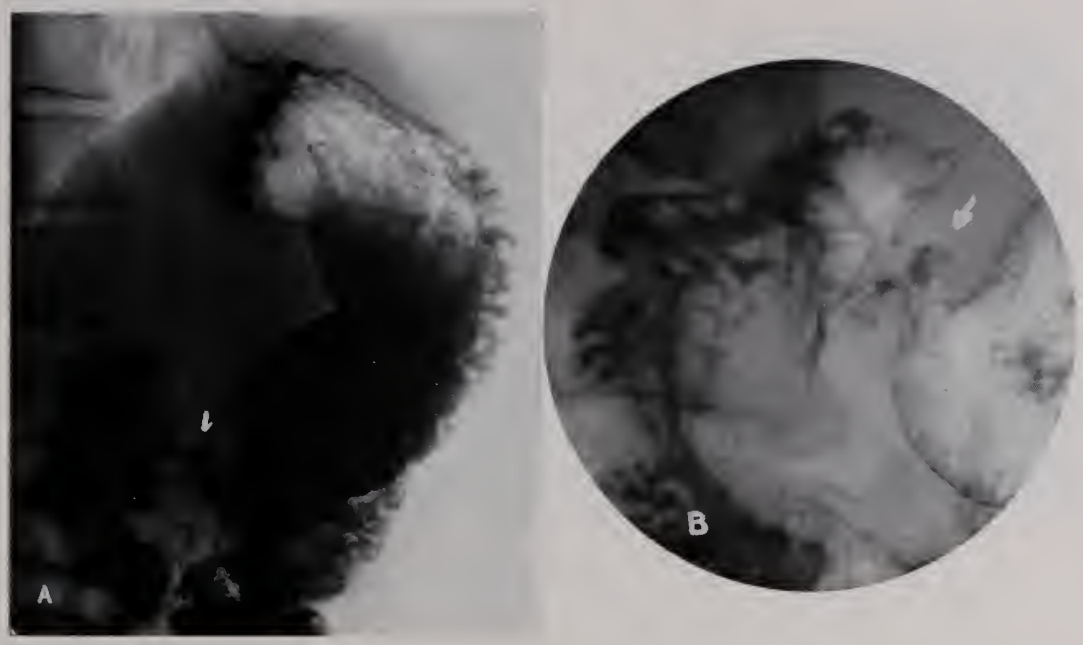
The duodenal bulb is too often obscured by the stomach. The bulb and the loop, however, are often seen through the gas-distended stomach. Deformity and scarring are at times more readily recognized. We have not infrequently seen duodenal ulcers *only* on the air contrast films.

The gastroscopist pumps air into the stomach in an attempt to flatten the mucosal folds. With our procedure we accomplish the same thing. Failure to obliterate mucosal folds strongly suggests pathology. We have access to the entire stomach regardless of size, shape and position.

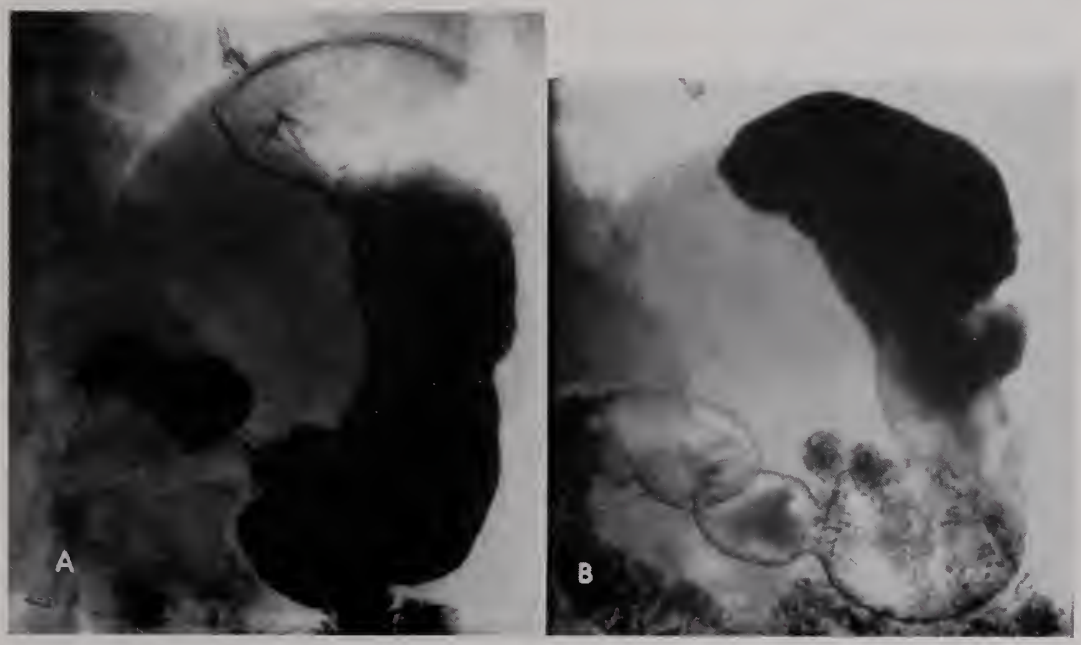
The following reproductions illustrate the advantage of this method.

Case #1—A. Polypoid ulcerating tumor mass in the fundus and cardia invading the lower esophagus.

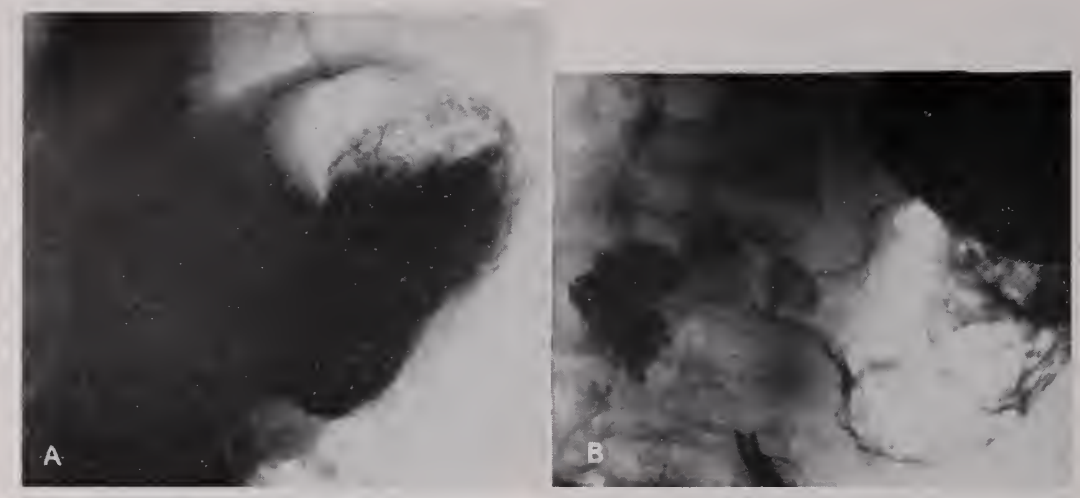
B. Air contrast study reveals polypoid tumor in the lower esophagus, fundus and cardia extending down the lesser curvature into the upper pars media. Note tumor masses cannot be obliterated by distending the stomach with gas. Path: Adenocarcinoma.



Case #2—A. Either channel or pre-pyloric ulcer. Cannot exclude malignancy.
B. Air contrast-location of ulcer is in the pyloric channel. Prepyloric segment distensible and not involved. (Subtotal gastrectomy; benign channel ulcer).



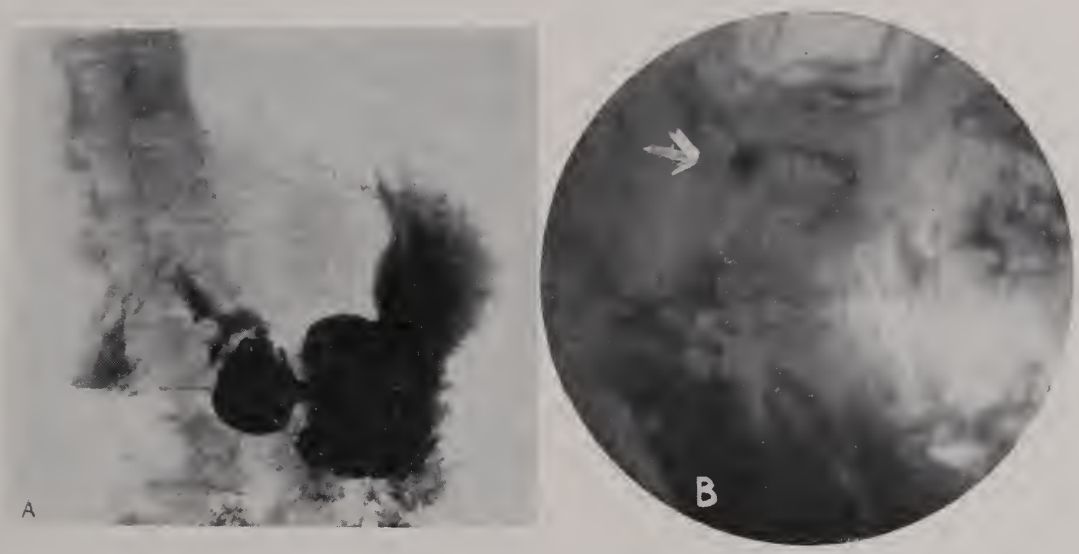
Case #3—A. Probable antral spasm.
B. Air contrast rules out pathology.



Case #4—A. Lesion is obviously malignant.
B. Powder technique demonstrates extent and location of cancer. Confirms lack of distensibility and indicates resectability. Note irregular margins in the antrum representing tumor infiltration. (Subtotal gastrectomy for adenocarcinoma of the antrum.) Metastasis found in the mesentery. Body and fundus not involved.

Case #5—A. Sliding hiatal hernia and benign gastric ulcer.
B. Air contrast reveals mucosal folds radiating to the base of the ulcer. Healed ulcer on later studies.

Case #6—A. The air contrast reveals a normal antrum.
B. Note polypoid tumor masses in the fundus and cardia as outlined by gas. Anaplastic carcinoma with liver metastasis.



Case #7—A. Deformed duodenal bulb with questionable ulcer crater.
B. Air contrast: active duodenal ulcer.

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Clifton Forge, Virginia

Pre-Paid Medical Care....

Edited by
RICHARD J. ACKART, M.D.

Blue Shield Directors, 1960-61

At its meeting in Virginia Beach during October, 1960, The Medical Society of Virginia once again made appointments to the Board of Directors of Virginia Medical Service Association, the Society-approved Blue Shield Plan which has its headquarters in Richmond. The twelve physicians annually appointed by the Society this year will serve as a committee of the Society, Dr. William C. Salley, Chairman, and will report back to the House of Delegates.

The corporate members of Virginia Medical Service Association (Participating Physicians) when in Virginia Beach elected physician-members of the Board, and subsequently the Board held an organizational meeting at which three persons representing the subscribing public and, also, the following officers were elected:

President, Dr. Fletcher J. Wright, Jr., of Petersburg

Vice-President, Dr. Ernest G. Scott of Lynchburg

Secretary-Treasurer, Dr. McKelden Smith of Staunton

Chairman of the Board, Dr. William Grossmann of Petersburg.

Specialty representation on the new Board can be summarized as follows: Internal Medicine, 6; Surgery, 4; General Practice, 4; one physician each for Anesthesiology, Dermatology, OALR, Orthopedics, Pathology, Pediatrics, Psychiatry, Radiology, and Urology; and eleven persons representing the subscribing public. The seven-man Executive Committee of the Board includes three internists, two surgeons, one general practitioner, and one pediatrican.

Of the twenty-four physicians on the Board, four are officers of The Medical Society of Virginia.

Concerning geographic representation of the medical profession, Richmond has six physician-Directors; Norfolk, three; Charlottesville, Lynchburg, Newport News, and Petersburg, two each; and seven other localities, one each.

A listing of the Directors of Virginia Medical Service Association is presented below.

✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣ ✣

*Walter P. Adams, M.D., Internal Medicine, Norfolk.

Mr. H. A. Brower, Personnel Superintendent, E. I. du Pont de Nemours & Co., Waynesboro.

*F. N. Buck, Jr., M.D., Urology, Lynchburg.

*Russell V. Buxton, M.D., General Surgery, Newport News.

F. Ashton Carmines, M.D., Orthopedic Surgery, Newport News.

George J. Carroll, M.D., Pathology, Suffolk.

George Cooper, Jr., M.D., Radiology, Charlottesville.

Mr. R. B. Crawford, President, Kilkare Laundry, Farmville.

Mr. John E. Damerel, Director of Personnel, City of Richmond, Richmond.

Frank D. Daniel, M.D., General Practice, Charlottesville.

T. Dewey Davis, M.D., Internal Medicine, Richmond.

William Grossmann, M.D., Pediatrics, Petersburg.

Mr. Harvey Higgerson, Vice President, Central National Bank, Richmond.

Guy W. Horsley, M.D., General Surgery, Richmond.

Mr. M. A. Hubbard, Executive Secretary, Virginia Farm Bureau Federation, Richmond.

Mr. William H. King, Attorney, Richmond.

*Mathew L. Lacy, II, M.D., General Surgery, South Hill.

*R. Campbell Manson, M.D., Dermatology, Richmond.

*Claude A. Nunnally, M.D., Internal Medicine, Fredericksburg.

Heth Owen, Jr., M.D., Anesthesiology, Richmond.

*Directors appointed by The Medical Society of Virginia.

Mr. Louis H. Peterson, President, Radio Station WNOR, Norfolk.

H. Grant Preston, M.D., Ophthalmology and Otolaryngology, Harrisonburg.

*Benjamin W. Rawles, Jr., M.D., General Surgery, Richmond.

Mr. George W. Robinson, Tabb, Brockenbrough & Ragland, Richmond.

*William C. Salley, M.D., Internal Medicine, Norfolk.

*John R. Saunders, M.D., Psychiatry, Richmond.

Ernest G. Scott, M.D., Internal Medicine, Lynchburg.

McKelden Smith, M.D., Internal Medicine, Staunton.

Mr. Walter L. Strang, Executive Vice President, Richmond Motor Company, Richmond.

Harry B. Taylor, Jr., M.D., General Practice, Norfolk.

Mr. E. Hudson Titmus, Jr., President, Titmus Optical Company, Petersburg.

Mr. Herbert G. Wall, Procter & Gamble, (retired), Norfolk.

*D. Edward Watkins, M.D., General Surgery, Waynesboro.

*Fletcher J. Wright, Jr., M.D., General Practice, Petersburg.

*Julian H. Yeatman, M.D., General Practice, Fork Union.

*Directors appointed by The Medical Society of Virginia.

Salk Vaccine with DTP Shot

Salk polio vaccine has been found to be more effective when given with diphtheria, tetanus, and pertussis vaccines in a combined injection.

A study of the polio-diphtheria-tetanus-pertussis vaccine (Compligen) was reported by researchers at Pitman-Moore Co., Division of Allied Laboratories, Zionsville, Ind., in the October 29th Journal of the American Medical Association. The study involved 192 children, ranging in age from one month to six years. It was designed to determine the merits of combining the polio shot with the successfully tested diphtheria-tetanus-pertussis (DTP) shot.

The polio antibody response, i.e., the bodily resistance built up by the vaccine, was "significantly greater" with the combined vaccine than with the Salk vaccine alone. The diphtheria antibody response to the combined vaccine also was "significantly higher" than it was to the DTP vaccine. However, the tetanus and pertussis responses were "essentially the same" to both the DTP and the polio-DTP vaccines.

The children were given a course of vaccinations consisting of three injections at approximately one-month intervals. This schedule was adopted because it is recommended for primary immunization with the DTP vaccine.

For comparative purposes, the polio vaccine was administered according to the same schedule. Therefore, it was considered as a primary vaccination since it is generally acknowledged that polio immunization should not be considered complete until a reinforcing dose is given six months after the first series of injections.

The effectiveness of the vaccines was based on the level of antibodies in blood specimens taken before and after the injections.

The article was written by D. E. Bordt, Ph.D.; Joseph W. Whalen, Ph.D.; Philip A. Boyer, M.D.; A. R. Pursell, B.S., and Francis P. Staffieri, B.S.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Notes on Communicable Diseases in in Virginia

AMEBIASIS. Amebic infection is thought by many to be found only in tropical countries. However, it occurs in warm and hot countries and less frequently in temperate regions. The incidence is low in well sanitated cities. There were 54 cases reported in Virginia in 1958, 48 cases in 1959, and there have been 42 cases reported from 42 areas of the State during the first nine months of 1960. This year only one of the mental institutions has reported cases—seven in Central State Hospital.

BRUCELLOSIS is one of the diseases of animals transmitted to man and is met most frequently in the areas where cattle and swine are slaughtered and handled. There were 21 cases in 1958, 27 in 1959, and 33 have been reported in the first three quarters of 1960. Twelve of this number have been reported from Isle of Wight County, the ham-producing section, and five from the City of Richmond where there are several meat packing plants.

DIPHTHERIA is one of the preventable diseases. We would like to feel that our citizens protect their children in infancy and give them the booster doses of diphtheria toxoid through the years to prevent them from contracting this infection. This thought is Utopian; each year there are cases reported and, unhappily, deaths occur from this infection. In 1958 there were 33 cases, in 1959 there were 13 cases, and through September of 1960 the total has already jumped to 20 cases reported from six areas. The City of Suffolk has accounted for 10 of these cases and the City of Portsmouth for three. There have been two deaths, one in Suffolk and one in Richmond.

INFECTIOUS HEPATITIS, or "Viral Hepatitis" is a disease that is ever present. In modern times epidemics have affected both rural and urban areas in various parts of the world. During wartime particularly it reaches tremendous proportions among troop concentrations. There are years in which the disease prevails to greater extent than in other years; 1960 has been one of these years. The disease has been reported from every section of the country this year—a total of 28,626 cases compared with 16,731 at the same time last year. In 1958 reported cases in Virginia numbered 286; in 1959 there were 503 cases and already 634 cases have been reported during the first nine months of 1960. It seems to be prevalent all over the State with a greater concentration in some areas than in others.

MENINGITIS, MENINGOCOCCAL, is a disease commonly observed in temperate climates. Sporadic cases occur throughout the year in both urban and rural areas and the seasons of highest incidence are winter and spring. Virginia reports these infections each year, some years in greater numbers than in others. There have been no recent epidemics. In 1958 there were 98 cases, in 1959 there were 98 cases, and up to October of this year there have been 46 cases. In these 46 cases there have been six deaths. These cases have been scattered among 27 areas and in no county or city have there been more than two cases reported in the year. There are no specific control measures for this disease.

MENINGITIS, ASEPTIC, is a disease that has become known to us in recent years as we have learned more about the viruses. There is no doubt that in the past many cases reported as poliomyelitis, chiefly the nonparalytic form, were due to viruses other than polio viruses and belonged to this group. Many more cases occur than are reported. From the cases that come to our knowledge we obtain evidence only that this disease is present, not to what extent. In certain areas we may learn that an epidemic is prevailing as, for example, in Buchanan County in August 1959. In 1958 there were 272 cases with this diagnosis reported. In 1959 the number jumped to 568 reported cases, and through September of this year only 32 cases have been reported from 16 areas.

POLIOMYELITIS is a disease that has caused alarm in any area in which it was diagnosed. The incidence of this disease has never been high when compared with the incidence of some other communicable diseases, measles for example, but the crippling effects and the deaths it has produced have placed it among the "dread" diseases. Poliomyelitis has occurred in waves with no fixed predictable years of high or low incidence in these cycles. Since the advent of the Salk poliomyelitis vaccine, the age-

group of highest incidence has changed from the school-age group, 5-9 years, to the age-group of the first five years of life, 0-4 years. It was formerly found more commonly in the economic groups that were most sheltered, the upper middle and the high economic groups. Since the vaccine has been used extensively, the highest incidence is among those in the low economic group, among persons living in substandard housing areas where concentration of individuals is greatest and sanitation is poorest.

There is no doubt that the number of cases in Virginia has dropped since the Salk vaccine was introduced though in 1958 there were 169 cases and in 1959 there were 290 cases. This year has been a year of low incidence in most parts of the country and in Virginia through the first week in October only 22 cases have been reported. Among these only one has been nonparalytic and this child had received three doses of Salk vaccine. In the paralytic group one patient had had three doses of the vaccine and another may have had three doses. Among the others in the paralytic group, four of the patients had been given one dose of vaccine, one may have had two doses, while thirteen are recorded as having had no vaccine at all. In these days there is no excuse for any person to be denied the vaccine. It is being produced in ample quantities for all to have it. Publicity concerning its value is constantly being given through all news media. It is available in the offices of all physicians and in all health departments. In Virginia it is available through the health departments without cost to all physicians for use among their indigent or medically indigent patients.

PSITTACOSIS, "parrot fever", has been present in the State in varying numbers for years, most of the human infections have been acquired from pet birds of the psittacine family. No cases have been reported during the current year.

Both ROCKY MOUNTAIN SPOTTED FEVER and TULAREMIA have been reported in high numbers this year. The fact that TULAREMIA has been reported in months other than those in which there is extensive shooting, would indicate that some of the infections from this disease have been tick-borne. The State Department of Health, through a research grant from the Public Health Service, is conducting a study on ROCKY MOUNTAIN SPOTTED FEVER this year. This study deal with evaluation of the factors concerned with the maintenance and transmission of this disease through mammals, birds, and arthropods as reservoirs. In 1958 there were 22 cases of Rocky Mountain Spotted Fever; in 1959 there were 38 cases; and in 1960, up to October, there have been 35 cases reported from 26 areas. Reported cases of Tularemia numbered 36 in 1958, 20 in 1959, and in the nine months period of 1960 there have been 31 cases reported from 19 areas of the State.

The enteric diseases, SALMONELLOSIS, SHIGELLOSIS, and TYPHOID FEVER, still prevail in the State. Salmonellosis in its many different types is widespread. Shigellosis, or bacillary dysentery, is present in greater numbers than we like to see and there have been a few local outbreaks in recent years. Approved public water and milk supplies together with modern sewage disposal have reduced the annual incidence of typhoid fever. The registration and supervision of known carriers of the disease, improved general sanitation, and the use of typhoid vaccine have helped to bring about this reduction. There are 105 known typhoid carriers under supervision in the State and 10 of these have been added during the current year. Few are cured of their carrier state. Antibiotics do not clear these individuals; cholecystectomy helps many of those who can have this operation performed. The outbreak of typhoid fever among Bridgewater College students this year was the result of infection through a carrier who was previously unknown.

	1958	*1959*	*1960* (9 months)
SALMONELLOSIS	126	174	102
SHIGELLOSIS	130	243	108
TYPHOID FEVER	18	16	18

Another preventable disease, TETANUS, continues to be present in small numbers. In 1958 there were nine cases reported, in 1959 there were 16 cases reported, and in 1960 there have been five cases reported in the first nine months of the year. The use of tetanus toxoid from infancy with booster doses at proper intervals can prevent these infections.

MEASLES occurs in "epidemic years". There is no natural immunity to this disease and when it has affected those in the susceptible group there is a drop until another population susceptible to the disease is built up. This accounts for the "epidemic years". The year 1958 was an "epidemic year" which carried over into 1959. There have been fewer cases reported this year.

PERTUSSIS reported in the first three quarters of this year, 253 cases from 40 areas, is less than was reported in 1958, 3054 cases, or in 1959, 1114 cases. But this year only 40 out of 98 counties and seven out of 13 cities have reported the presence of this

disease. Pertussis is a disease that is preventable through the use of vaccine and in many instances it is highly important that the infant or child be prevented from acquiring this infection. Complications make it a dangerous infection for those who have chronic debilitating diseases, especially those with damaged hearts.

It is necessary to call attention to the fact that the numbers listed are accurate only as to the numbers reported. In many instances it has been shown above that a certain number of cases have been reported from a given number of areas; for example 253 cases of whooping cough have been reported this year from 40 areas. We have 98 counties in the State and there are also 13 cities which report separately from the counties. It would seem that many are not reporting. It is also believed that the reports received are by no means complete. It is the duty and obligation of every physician to report communicable diseases to his local health department and, in turn, it is the duty of the health department to send these reports to the State Department of Health. The State submits its report, compiled from the reports received from all health departments within its boundaries, to the National Office of Vital Statistics. The last office makes its report, compiled from the reports received from the various States, to the World Health Organization.

Monthly Report of Bureau of Communicable Disease Control

	Oct. 1960	Oct. 1959	Jan.-Oct. 1960	Jan.-Oct. 1959
Brucellosis	0	7	33	26
Diphtheria	14	2	31	10
Hepatitis (Infectious)	50	69	723	414
Measles	120	37	6424	14,570
Meningococcal Infections	4	7	50	70
Aseptic Meningitis	8	—	40	—
Poliomyelitis	18	50	34	263
Rabies (In animals)	13	22	190	152
Rocky Mt. Spotted Fever	2	4	37	37
Streptococcal Infections	419	368	5171	7446
Tularemia	0	0	31	16
Typhoid	3	9	21	24

State Below Average in Physicians

Virginia had 101.6 physicians per 100,000 population last year as compared to a national average of 128.6, according to figures released by the Southern Regional Education Board. The Old Dominion came forth in a list of 14 Southern states in the number of medical men in relation to population. Florida was first with 121.9 doctors per 100,000 population. South Carolina has the lowest percentage of 77.7.

Mental Health . . . .

HIRAM W. DAVIS, M.D.

The Mental Hygiene Clinics

The opening of the Atlantic Mental Hygiene Center with headquarters at Virginia Beach and branch offices in Accomac and Northampton Counties, brings to 23 the number of Mental Hygiene Clinics administratively supervised by this department.

Since many of the referrals to these clinics are directly from physicians an up to date list of addresses are herewith supplied.

MENTAL HYGIENE CLINICS IN VIRGINIA

Alexandria Mental Hygiene Clinic
203 North Washington Street
Alexandria, Virginia
Elmer F. Lowry, M.D., Director

Arlington Mental Hygiene Clinic
1800 North Edison Street
Arlington, Virginia
Irving Schneider, M.D., Director

Atlantic Mental Hygiene Center
207-211 17th Street
Virginia Beach, Virginia
Patricia R. Pearce, M.D., Director

Bristol Mental Health Clinic
Bristol Memorial Hospital
Bristol, Virginia-Tennessee
C. J. Gordon Blackford, M.D., Director

Childrens Service Center
1312 Lane Road
Charlottesville, Virginia
Jerrold Hammond, M.D., Director

Danville Clinic for Mental Hygiene
118 South Ridge Street
Danville, Virginia
Jessie M. Enslin, M.D., Director

Educational Therapy Center
201 North 19th Street
Richmond, Virginia
Hertha Riese, M.D., Director

Fairfax County Child Guidance Clinic
13 Sleepy Hollow Road
Falls Church, Virginia
James J. Thorpe, M.D., Director

Fredericksburg Area Mental Hygiene Clinic
1206 Princess Anne Street
Fredericksburg, Virginia
James K. Hall, Jr., M.D., Acting Director

Loudoun County Guidance Center
116 North King Street
Leesburg, Virginia
John E. Nardini, M.D., Director

Lower Peninsula Mental Hygiene Clinic
95-30th Street
Newport News, Virginia
T. J. Lassen, M.D., Director

Lynchburg Guidance Center
512 Clay Street
Lynchburg, Virginia
H. Marjorie Sloan, M.D., Director

M. C. V. Mental Hygiene Clinic
1200 East Marshall Street
Richmond, Virginia
Patrick H. Drewry, Jr., M.D., Director

Memorial Guidance Clinic
3001 Fifth Avenue
Richmond, Virginia
William M. Lordi, M.D., Director

Mobile Psychiatric Clinic
601 Spring Street
Richmond, Virginia
James B. Funkhouser, M.D., Acting Director

Mountain Empire Guidance Center, Inc.
805 Clement Street
Radford, Virginia
Clara King Dickinson, M.D., Director

Norfolk Mental Health Center
1104 Colonial Avenue
Norfolk, Virginia
Dietrich W. Heyder, M.D., Director

HIRAM W. DAVIS, M.D., *Commissioner, Department of Mental Hygiene and Hospitals.*

Northwestern Guidance Center
117 West Boscawen Street
Winchester, Virginia
Basil E. Roebuck, M.D., Director

Portsmouth Area Counseling & Guidance Clinic
3310 Columbia Street
Portsmouth, Virginia
Margaret D. Craighill, M.D., Director

Roanoke Guidance Center
406 Allison Avenue, S.W.
Roanoke, Virginia
Hans H. Stroo, M.D., Director

Southside Area Mental Hygiene Clinic
133 Monroe Street
Petersburg, Virginia
Leonard C. Lund, M.D., Director

Tidewater Guidance Clinic
Duke of Gloucester Street
Williamsburg, Virginia
John Mullaney, M.D., Acting Director

Valley Mental Health Center
20 North Market Street
Staunton, Virginia
Donald B. Crider, M.D., Director

Migraine Sufferers

Two out of three migraine sufferers could be "greatly helped" by insight into the factors in their lives which may cause the headaches, according to Dr. Adrian M. Ostfeld of Chicago.

Dr. Ostfeld, writing in the October 29th Journal of the American Medical Association, said:

"For prevention of migraine headache, the simplest and most effective remedy is still a sympathetic relationship with the patient and a kindly, helpful attitude on the part of the physician.

"A more penetrating relationship can be one in which some attempt is made to have the patient recognize those factors in his life that may be causing him to go in the wrong direction or at the wrong pace. Two out of three patients with migraine can be greatly helped by any physician who is interested in human problems and is willing to spend a minimum of time with a patient in reviewing them with him."

In discussing treatment of migraine headaches, Dr. Ostfeld said tranquilizers have proved of little value, adding:

"Patients with migraine, who appear to have a great need for activity and accomplishment, are extremely reluctant to 'give in' to the sedative effects of these agents."

There are two methods of treating migraine headaches. The first is the use of agents, such as ergotamine tartrate, designed to constrict the blood vessels of the brain which dilate during a migraine attack. The other approach is the use of agents that prevent the liberation of, or antagonize, the effects of the "headache substance."

Medical scientists believe that migraine headaches are caused by the release of an unknown substance or substances capable of inducing the blood vessels of the brain to dilate. Several substances are being investigated. One of these is serotonin, a compound found in the blood.

Serotonin can cause migraine headache and anti-serotonin therapy can reduce the frequency and severity of attacks when taken as a preventative agent. However, this only holds true in some persons.

Anti-serotonin therapy, although its success has been limited, may open the way for development of more effective drugs of this kind.

The author is associated with the department of preventive medicine, University of Illinois College of Medicine.

MINUTES OF ANNUAL MEETING

Council

A meeting of the Council of The Medical Society of Virginia was called to order by Dr. Allen Barker, President, at 1:00 P.M. on Sunday, October 9, 1960, at the Cavalier Hotel, Virginia Beach. Attending were Dr. Guy Horsley, Dr. Walter P. Adams, Dr. Robert S. Hutcheson, Jr., Dr. K. K. Wallace, Dr. Paul Hogg, Dr. Thomas W. Murrell, Jr., Dr. Fletcher J. Wright, Jr., Dr. William N. Thompson, Dr. Alexander McCausland, Dr. Dennis P. McCarty, Dr. W. Fredric W. Delp, Dr. Richard E. Palmer, Dr. John T. T. Hundley, Dr. Mack I. Shanholtz and Dr. Harry J. Warthen. Also in attendance were Dr. Vincent W. Archer, Delegate to AMA, Dr. W. Linwood Ball, Delegate to AMA, Dr. John C. Watson, President of the Virginia Board of Medical Examiners, and Dr. Russell M. Cox, Secretary of the Virginia Board of Medical Examiners.

Dr. Barker reported a quorum present and regretfully announced that Dr. Leavell would be unable to attend because of a recent illness.

The President introduced Dr. Walter A. Porter, Chairman of the Finance Committee, who reported the findings and recommendations of the Committee with reference to a retirement plan for members of the Headquarters staff. It was the Committee's recommendation, made after obtaining the advice of recognized authorities, that a program based on the so-called Mills Bills approach would be the simplest and most advantageous. Employees would have an immediate vested interest but the Society would be protected by eligibility standards requiring at least five years service and an entrance age of thirty. Brought out also was the fact that this plan might well be the least costly. It was then moved and seconded that the Committee's recommendation be approved and, further, that the Committee be authorized to implement such a plan after obtaining several bids. The motion carried.

The Committee was requested to also investigate the possibility of devising a similar retirement plan for physicians' office assistants.

Dr. Porter then reported that the Society's finances were in good condition and presented the proposed budget for 1960-61. A motion to amend the budget by appropriating an additional $1,000 for the American Medical Education Foundation was passed. It was directed that this $1,000 be taken from Society surplus assets. The budget, as adopted, is included in the minutes of the First Session of the House of Delegates.

A question was raised concerning the advisability of investing additional Society funds and it was moved that the Finance Committee be authorized to make such investments as it deems advisable—with approval of the Executive Committee. The motion was adopted.

Council then considered a request that the Society endorse the use of live virus polio vaccine. During the ensuing discussion, it was mentioned that an investigation committee of the Virginia Pediatric Society was of the opinion that such action might be premature. A motion to table the request indefinitely was adopted.

Dr. Watson then acquainted Council with some of the problems facing the Board of Medical Examiners. He stated that the new examination required for foreign graduates is helping a great deal and should serve to stabilize that particular problem somewhat. He spoke highly of the work of Dr. Graves in this particular field.

Dr. Cox also praised the dedicated efforts of Dr. Graves. He reported that one of the big needs of the Board at this time is additional revenue—brought on by mounting expenses. The Council was told it might be asked to soon approve a plan designed to bring in more revenue.

It was then moved that a letter be written Dr. Graves expressing the sincere appreciation of the Society for his efforts on behalf of the profession while serving as Secretary-Treasurer of the State Board of Medical Examiners. The motion was amended to have a suitable resolution drawn and introduced in the House of Delegates. The motion carried as amended.

Considered next was a letter from Dr. Graves calling attention to the fact that graduates of foreign medical schools have seven years following licensure to become citizens. If they do not, their licenses become null and void. This raises the distinct possibility that the Society could eventually have mem-

bers who do not hold medical licenses anywhere. It was Dr. Graves' suggestion that consideration be given to granting temporary membership to these physicians pending receipt of citizenship.

It was learned that changes in the Constitution and By-Laws would be necessary to grant temporary membership. It was decided the matter should be referred to the Judicial Committee for study and possible action.

Council was advised of the desirability of having as much biographical information about members as possible. This raised the question as to whether there was any reason the regular membership application form should not include "race". It was moved that the form include the applicant's race and also his citizenship status. The motion carried.

Attention was called to the excellent work being now carried on by the Virginia Hospital Association and the feeling was expressed that a representative of the Association should be invited to attend meetings of the House of Delegates. It was then moved that the President of the Virginia Hospital Association, or his official representative, be invited to attend future meetings of the House. The motion carried.

The thought was expressed that the Commissioner of Mental Hygiene and Hospitals should be invited to attend meetings of the Council. Although he would not have a vote, he would be able to express an opinion and answer any questions Council might have. It was moved and passed that the Commissioner be invited to attend future meetings of the Council.

Next on the agenda was a proposal that The Medical Society of Virginia honor Senator Harry F. Byrd for his work in the U. S. Senate. It was mentioned that recognition of any sort should also include Congressman Smith and others who have rendered outstanding service. While everyone agreed that Senator Byrd and others deserve some appropriate recognition, it was deemed advisable to proceed slowly in order not to violate any laws bearing on political action. It was moved that the proposal be tabled. The motion carried.

Dr. Hundley then reviewed a proposed new procedure for conducting business of the House of Delegates. Approval was voted and the procedure referred to the House for consideration and final action.

Dr. Murrell advised Council of a meeting with the District Supervisor of the Bureau of Narcotics and of a movement in some circles to develop ambulatory treatment programs for narcotic addiction. He then presented a resolution which would have the Society oppose such ambulatory plans and urge the development of realistic institutional care plans for addicts. Mr. Murrell stated that many State Societies were taking similar actions. The resolution was adopted.

The Council was then requested to select a time and place for the 1963 Annual Meeting. It was learned that the Hotel Roanoke is available from October 6-9 and it was voted to confirm those dates. The Secretary was also directed to obtain possible dates in the Norfolk area for 1964.

There followed a thorough discussion of the problems resulting in some areas from the fact that physicians reside in the territorial area of one component society but have their offices and principal practice in another. It was pointed out that many of these physicians desire membership in the societies in whose areas they practice, but this is believed by some to penalize the societies having jurisdiction over the areas in which they reside. The By-Laws currently make the territorial area in which a member resides the determining factor for primary membership.

Council was advised that the Judicial Committee had given the matter a great deal of thought and had reached the conclusion that no amendments to the By-Laws are advisable at this time. It was also pointed out that a physician can belong to more than one society should he desire, but can vote for members of the House of Delegates, be a candidate for election to the House of Delegates and be counted in the numerical apportionment of membership in the House of Delegates, only in the component society established in the territorial area of his residence (Article V, Section 2, By-Laws).

The belief existed that component societies themselves could adequately handle any problem that might arise. It was moved and passed that Council concur with the opinion of the Judicial Committee.

Considered next was a suggestion that alternates be appointed for members of Council, and be permitted to attend Council meetings when Councilors are ill or, for any other reason, unable to be present. It was the concensus, after much discussion, that alternates, if approved, should not be entitled to vote. A motion was then introduced providing that an alternate designated by a Councilor, unable to attend a Council meeting because of illness, may, at the discretion of the President, be permitted to attend and participate without voting privileges. The motion carried.

A resolution, sponsored by the Liaison Committee to Confer with the State Board of Nurse Examiners, with reference to medical assistants organizations was read. The resolution would have the Society urge each member to take active steps to insure that his employees are not members of the American Association of Doctors' Nurses and that his employees be encouraged to join instead the American Association of Medical Assistant. The resolution also urged each county medical society to assume sponsorship of a local chapter of the American Association of Medical Assistants. The resolution was adopted.

Council was advised that the Florida Medical Association had refunded $300 of the $500 contributed by The Medical Society of Virginia for general arrangements and Southeastern States hospitality during the 1960 annual meeting of AMA at Miami Beach.

Next to be considered was a request that the Society distribute copies of Dr. Fletcher Woodward's editorial on traffic safety (Virginia Medical Monthly, May, 1960) to civic clubs over the State. It was moved that, with Dr. Woodward's approval, copies be sent to all national organizations interested in traffic safety with an endorsement by the Council and permission to reprint. The motion carried.

Dr. Horsley stated that, in his opinion, the Society's appointees to the Board of Directors of the Virginia Medical Service Association should constitute a standing commmittee. He also thought that, in the interest of continuity, appointments should be made for three years. Brought out was the fact that both the Constitution and By-Laws must be amended in order to add a new standing committee. It was moved that the matter be referred to the Judicial Committee with a recommendation that necessary amendments to the By-Laws be prepared. The motion carried.

Council was informed that several requests had been received from individual members wanting Mr. Duval to hand down an opinion concerning whether one physician might legally employ another. Three years ago, Council had directed that only matters pertaining to The Medical Society of Virginia per se should normally be referred to the Society's attorney. This, in effect, would eliminate the possibility of the Society infringing on the private practice of law. It was therefore moved that Council reaffirm its previous stand. The motion was adopted.

A further attempt to amend Virginia's laws in such manner as to permit certain closed panel plans to operate in the State was predicted, and a motion was introduced reaffirming the Society's opposition to any such movement. The motion was adopted.

A resolution recently adopted by the Virginia Pharmaceutical Association was then read. The resolution expressed opposition to legislation denying to pharmacy the use of trade names, believing firmly that no such denial is needed in the public's interest and such action would serve to benefit only those who seek to substitute the regulations of a bureaucratic government for the law of the market place in a free economy. Council was in general agreement.

A motion was introduced putting the Society on record as having no objection to the use of trade names by pharmaceutical manufacturers, but advocating that generic names be listed immediately below trade names on packages or advertising circulars. The motion carried.

Dr. Murrell then described some of the problems and hardships confronting local medical societies as a result of certain regulations set forth by the Joint Commission on Accreditation. He explained that attendance at society meetings was being cut to an alarming degree and, consequently, much badly needed information during these critical days is not being properly disseminated.

Dr. McCausland advised that the Roanoke Academy of Medicine was sponsoring a resolution bearing on the subject which would be introduced in the House of Delegates. Dr. Murrell and Dr. McCausland were asked to discuss the matter before the Reference Committee.

There being no further business, the meeting was adjourned.

House of Delegates

First Session

The House of Delegates of The Medical Society of Virginia met in the Cavalier Room of The Cavalier Hotel, Virginia Beach, on Sunday, October 9, 1960, and was called to order at 8:00 P.M. by Dr. Allen Barker, President.

Dr. Barker introduced Dr. John T. T. Hundley, Speaker, who was advised by Dr. Ira L. Hancock, Chairman of the Credentials Committee, that a quorum was present.

The minutes of the October, 1959, meeting of the House were approved as published in the December, 1959, issue of the Virginia Medical Monthly.

The Speaker introduced Mrs. Walter A. Porter, President of the Woman's Auxiliary to The Medical

Society of Virginia, who told of the excellent work being carried on by the Auxiliary in many fields—particularly those having to do with the American Medical Education Foundation and Student Loan Funds.

Mrs. F. Clyde Bedsaul, President-Elect of the Auxiliary, was also introduced.

Society delegates to meetings of allied organizations were then recognized. Dr. Mallory S. Andrews had represented the Society at the annual meeting of the Virginia Pharmaceutical Association and Dr. Guy W. Horsley had served as delegate to the annual meeting of the Virginia Dental Association.

The Speaker then introduced visiting delegates from allied organizations. Dr. William B. Costenbader, Norfolk, represented the Virginia Dental Association and Mr. V. T. Clark, Portsmouth, represented the Virginia Pharmaceutical Association. Mr. Clark reported the opposition of his Association to any and all socialistic schemes for solution of health care problems. He also reported that the Professional Relations Committee of the Virginia Pharmaceutical Association had recommended the formation of a committee composed of representatives of the various professional associations to coordinate the many efforts to promote better medical care and evaluating legislation affecting the professions.

Miss Louise Paxson, Norfolk, represented the Virginia State Nurses Association and Mr. Stuart Nichols, Richmond, represented the Medical College of Virginia Chapter of the Student AMA. Mr. Nichols, a Regional Vice-President and member of the Executive Committee of the Student AMA, had attended that organization's annual meeting and expressed the appreciation of his Chapter for the Society's financial assistance in making the trip possible.

Dr. George Cooper was then asked to introduce a special guest speaker, Dr. John Donaldson of Pittsburgh. Dr. Donaldson acquainted the House with a plan for improved medical service, sponsored by the Pennsylvania Medical Association, and currently proving quite successful in the Pittsburgh area. The plan, featuring committees which work closely with Blue Cross-Blue Shield and the commercial companies, is doing much to eliminate over utilization. There are committees to advise on fees, length of care, matters pertaining to competence, relative values, etc. As a result of this program, Dr. Donaldson indicated that Blue Cross has found it possible to offer contracts to those citizens sixty-five years of age and over. He stated that medical public relations have also improved in the test area. Dr. Donaldson also mentioned the Pennsylvania Physicians Committee for Better Government and pointed out the need for such committees to stay active at the local and state levels.

The Speaker then appointed a delegate from each Congressional District to meet with their respective delegations for the purpose of electing members of the Nominating Committee. The various delegations caucused during a short intermission which followed.

The Committee on Nominations was announced as follows:

1st District:	Dr. F. Ashton Carmines
2nd District:	Dr. George H. M. Rector
3rd District:	Dr. Robert Terrell
4th District:	Dr. T. Addison Morgan
5th District:	Dr. Louis Bailey
6th District:	Dr. George S. Hurt
7th District:	Dr. Dennis P. McCarty
8th District:	Dr. Cato Drash
9th District:	Dr. R. F. Gillespie
10th District:	Dr. J. R. B. Hutchinson

The new procedure for handling the business of the House was reviewed by Dr. Hundley. It was pointed out that the proposal to have two Reference Committees should expedite matters considerably the following day. It was moved and passed that the recommended procedure be adopted.

Dr. Walter A. Porter, Chairman of the Finance Committee, was recognized for the purpose of presenting the proposed budget for fiscal 1960-61 as recommended by Council.

First, however, Dr. Porter presented a proposed retirement benefit program for State Office employees. The program featured tax favored annuities which can be purchased by organizations qualifying under the Technical Amendments Act of 1958. While the employees would have an immediate vested interested in such a plan, the Society would be protected by eligibility standards requiring at least five years of service and an entrance age of thirty. It was moved and passed that the retirement plan, as recommended by the Committee and Council, be approved.

After Dr. Porter advised the House of Council's recommendation that an additonal $1,000 be appropriated from general funds for the American Medical Education Foundation, it was moved that the budget, as it appears below, be approved:

BUDGET 1960-61

Executive Office:

Salaries	$ 29,600.00
Telephone & Telegrams	1,550.00

Postage	2,000.00
Stationery & Supplies	1,200.00
Office Equipment	500.00
Building Maintenance & Repair	6,800.00
Convention Expense	1,000.00
Council & Committees	2,000.00
Executive Assistant	350.00
Delegates to AMA	1,500.00
President's Expense	1,000.00
Travel Expense	1,500.00
Virginia Medical Monthly	40,000.00
Scientific Exhibits	2,500.00
Legal Expense	2,500.00
Walter Reed Commission	500.00
Woman's Auxiliary	100.00
Membership Dues—Affiliated Agencies	215.00
Editor—Virginia Medical Monthly	600.00
Retirement Program	4,000.00
Special Appropriations:	
Virginia Council on Health & Medical Care	3,000.00
American Medical Education Foundation	3,000.00
National Society on Medical Research	150.00
Rural Health Committee	500.00
Student AMA	250.00
Civil War Centennial Medical Exhibit	1,000.00
Printing of booklet on Medical Assistants	300.00
Virginia League of Nursing	300.00
Social Security Taxes	600.00
Miscellaneous	600.00
Public Relations:	
Conference Expenses (Senior Day)	1,000.00
Radio & Press	200.00
Literature & Bulletins	200.00
Miscellaneous Projects	500.00
TOTAL	$111,015.00

The budget was adopted.

The Speaker then read a telegram from Dr. George Lull of the American Medical Education Foundation expressing appreciation of the Society's recent contribution of $3,000. A special citation from the Foundation to Dr. Henry P. Deyerle, Harrisonburg, was also read.

Dr. Hundley reported actions taken by Council during its meeting earlier that afternoon and read the following resolution on narcotic addiction. The resolution was adopted.

WHEREAS: the adequate treatment of narcotic addiction necessitates constant control in addition to its medical aspect and multiple facets of social and economic factors, and

WHEREAS: the achievement of these objectives is often difficult of total attainment, even under the best regimen of therapy currently possible, and

WHEREAS: experience has shown that treatment of narcotic addiction by means of various types of ambulatory clinic plans has been universally unsuccessful, impractical and scientifically unsound for over 50 years, and

WHEREAS: in all attempts of treatment of narcotic addiction by the ambulatory method, addiction has in fact increased,

THEREFORE BE IT RESOLVED that The Medical Society of Virginia be placed on record as opposing the ambulatory clinic plan for the treatment of narcotic addiction, and

BE IT FURTHER RESOLVED that the Society's delegates to the American Medical Association be instructed to oppose the development of any such ambulatory treatment plans, and support measures designed (1) to increase research in this field, (2) to develop realistic institutional care plans for addicts, (3) to advance methods and measures toward rehabilitation of the addict, and (4) to establish methods for the dissemination of factual information on narcotic addiction to the members of the medical profession.

Dates and locations of annual meetings through 1963 were announced. The 1961 meeting will be held at Richmond's Hotel John Marshall, October 8-11.

A resolution, sponsored by the Roanoke Academy of Medicine, was then introduced by Dr. Kaufman, and referred to Reference Committee #1 for consideration.

The following recommendation, approved earlier by Council, was adopted:

The Medical Society of Virginia has no objection to the use of trade names by pharmaceutical manufacturers, but advocates legislation requiring the generic name of a product, as adopted by official agencies, be listed in type of a size easily read, immediately below the trade name on any package, or circular, describing the drug.

Dr. Palmer then introduced a resolution asking the House to voice opposition to any effort to amend the Virginia law in such manner as to permit objectionable health plans to operate in the State. The resolution was accepted and referred to Reference Committee #2.

The following committee reports, published in the September, 1960, issue of the Virginia Medical Monthly, were received: Executive Secretary-Treasurer; Editorial Board; Scientific Exhibits; Ethics; Mediation; Legislation; Medical Service (referred to Reference Committee #2); Membership; Public Relations; Child Health; Liaison to Department of

Public Welfare; National Legislation (Dr. Archer reported that details on Mills Bill could be found in Virginia Medical Monthly, AMA Journal and AMA News); National Emergency Medical Service (Dr. Hundley deplored complacency over matters pertaining to civil defense); Insurance; Liaison to State Bar Association (Dr. Mann acquainted House with new Joint-Medico Legal Plan to screen malpractice cases. Plan referred to Reference Committee #1); Advisory to Woman's Auxiliary; Conservation of Sight; Principles and Policies; Radiation Hazards (Dr. Cooper reported that necessary forms required by newly enacted registration law are now ready); Walter Reed Commission; American Medical Education Foundation; House; Medicare Advisory; Maternal Health (referred to Reference Committee #2); Traffic Safety; Liaison to United Mine Workers Fund; Rehabilitation (supplementary report urges each medical society to have at least one program each year on rehabilitation. Committee will assist in obtaining speaker); Aging and Chronically Ill; Mental Health (referred to Reference Committee #1); Federal Medical Services; Delegates to AMA and Cancer (Dr. Kight obtained acceptance of recommendation that Society approve a cancer coordinating committee for the State of Virginia and that the Chairman be permitted to invite other interested organizations and agencies to join in organizing such a committee).

Also received were reports of the following committees (reports may be found immediately following minutes of the second session of the House): Advisory to State Department of Health (referred to Reference Committee #1); To Work with Medical and Allied Organizations; Medical Education and Alcoholism.

The report of the Judicial Committee, containing proposed amendments to the Constitution and By-Laws, was considered. The House voted to amend the first sentence of Article VII in such manner as to grant full membership in the House of Delegates to the Society's delegates to the American Medical Association.

Proposed amendments to Article VI and Article VIII of the By-Laws were read and held for adoption on Tuesday, October 11. These amendments, minor in nature, would clarify the By-Laws by eliminating reference to both "Councilor" and "Congressional Districts" and would permit each Congressional District to organize a district council rather than imply that it must be done.

The following resolution, in tribute to Dr. Kenneth D. Graves, was then read by Dr. Hundley and adopted:

WHEREAS: The State Board of Medical Examiners contributes vitally to the professional and ethical standards of medical practice in Virginia, and

WHEREAS: the Secretary of the Board of Medical Examiners plays a predominant part in the functions of that Board, and

WHEREAS: Dr. Kenneth D. Graves has served as Secretary of the Virginia Board of Medical Examiners for many years but has recently resigned,

THEREFORE BE IT RESOLVED that the House of Delegates of The Medical Society of Virginia, in annual session October 9, 1960, expresses its sincere and deep felt appreciation to Dr. Kenneth D. Graves for the years of efficient, faithful and unselfish service rendered by him.

Dr. Cox introduced a resolution which would designate certain individuals as official spokesmen for The Medical Society of Virginia. The resolution was referred to Reference Committee #1.

A resolution on Milk Sanitation Control was referred to Reference Committee #2.

Dr. Grossmann introduced resolutions on improved medical service and Blue Shield participation, which were referred to Reference Committees #1 and #2 respectively. Another resolution pertaining to new hospital bed construction was also referred to Reference Committee #2.

Dr. McCausland then introduced, on behalf of the Rehabilitation Committee, a resolution recommending that Dr. G. S. Fitz-Hugh be nominated for the President's award given annually to the physician who has contributed most to the employment of the handicapped. The resolution was referred to Reference Committee #1.

There being no further business, the meeting was adjourned.

SECOND SESSION

The second session of the House of Delegates was called to order by Dr. John T. T. Hundley, Speaker, at 4:00 P.M. Tuesday, October 11, 1960, at the Convention Center, Virginia Beach.

A quorum was reported by Dr. Richard Palmer, Vice-Chairman of the Credentials Committee.

The Speaker then presented the report of Reference Committee #1. Dr. Hundley advised the House that the Committee had requested Dr. Kaufman and Dr. Murrell to rewrite the resolution having to do with accreditation of hospitals in order to strengthen and emphasize certain points. The fol-

lowing resolution was then introduced and adopted:

WHEREAS: It is increasingly evident that certain regulations of the Joint Commission on Accreditation adversely affect the activities of organized medicine in general and specifically, the component societies of The Medical Society of Virginia:

(a) by lowering the attendance records of component societies as a result of present requirements and regulations pertaining to hospital meetings;
(b) by initiating policy without regard for local conditions and opinion;
(c) by placing the physician in such a position that his responsibility is often to the hospital first and the component society second;
(d) by their policies drastically affecting the ability of medical leadership to inform the component societies on state and national legislation so vital to the future of American medicine;
(e) by interference with medical education programs as submitted by component societies;

THEREFORE, BE IT RESOLVED that The Medical Society of Virginia formally express to the Joint Commission on Accreditation its dissatisfaction with and disapproval of policies of the Joint Commission which adversely affect the activities of component societies; and

BE IT FURTHER RESOLVED that to move toward a reasonable answer to this problem the delegates from The Medical Society of Virginia to the American Medical Association be ordered to present a resolution to the House of Delegates of the AMA to bring this matter forcibly to the attention of the proper reference committee and that the Council of The Medical Society of Virginia be authorized to hold conferences immediately with representatives of the Joint Commission on Accreditation.

BE IT FURTHER RESOLVED that a report of this effort be submitted to Council at its interim meeting and to this Society at the meeting of the House of Delegates in 1961.

It was the committee's recommendation that the following resolution, sponsored by the Committee on Mental Health, be adopted. The House concurred.

BE IT RESOLVED that The Medical Society of Virginia urge all Blue Cross and Blue Shield plans in the State, as well as other health insurance plans, to adopt uniformity of coverage for psychiatric and emotional disorders.

The House then approved the Committee's recommendation that the following resolution be adopted:

Only the President, Chairman of the Public Relations Committee and, in the case of an adopted and recorded policy, the Executive Secretary, may speak officially for The Medical Society of Virginia.

The House approved the committee's recommendation that a special committee on tuberculosis be appointed by the President to work with the State Department of Health in devising and carrying out a program designed to reduced the number of persons with tuberculosis not previously known to local and state health authorities.

The House was advised that the Committee "does not feel that the entire tuberculosis program has developed to the extent that definitive recommendations regarding the utilization of at times empty sanitorium beds can be presently made, so your Reference Committee does not recommend adoption of this resolution at this time. It does recommend that the statutory regulations for admission only of suspected tuberculosis patients be changed to include the admission and treatment of chronic chest disorders among the indigent and medically indigent who can expect rehabilitation." This portion of the Committee's report was adopted.

Dr. Hundley then advised the House that, through an oversight, certain recommendations from the Committee to Confer with the State Board of Nurse Examiners had not been brought to its attention during the first session. The recommendations had been considered by the Reference Committee which urged adoption of the following:

That the members of The Medical Society of Virginia be urged to take active steps to insure that their employees are not members of the American Association of Doctors' Nurses but that these employees be encouraged to join the American Association of Medical Assistants which has been approved by the American Medical Association as having merit for them and which is not a threat to practical and professional nursing. It is suggested that each county medical society assume sponsorship of a local chapter of the American Association of Medical Assistants.

The recommendation was adopted.

It was not believed necessary to take action on other recommendations contained in the report of the Committee to Confer with the State Board of Nurse Examiners.

The House of Delegates then voted unanimously to adopt the following resolution:

BE IT RESOLVED that we, the House of Delegates of The Medical Society of Virginia, recommend to

the Governor's Committee that Dr. G. S. Fitz-Hugh be given the President's award for the physician who has done the most toward the employment of the handicapped in Virginia during the past year.

Upon the Committee's recommendation, the House voted to adopt the Joint Medico-Legal Plan for screening malpractice cases as developed by committees representing The Medical Society of Virginia and Virginia State Bar Association. It was further recommended that members of component societies follow the suggested procedure for a trial period of at least twelve months, contingent upon the acceptance by the Bar Association of the agreement, and further that statutory enactment be sought to prevent the records and deliberations of the committee from being subject to subpoena.

Dr. Hundley then requested Dr. Fletcher J. Wright, Jr., Vice-Speaker and Chairman of Reference Committee #2, to present the report of that Committee.

The Committee recommended that the four point resolution on Blue Shield participation be adopted. During the discussion, Dr. Bates and Dr. Salley emphasized the responsibility of Society members to make Blue Shield work and to eliminate the various abuses. Lack of cooperation on the part of many physicians was mentioned. The resolution was then adopted as follows:

Resolved that The Medical Society of Virginia take actions paralleling those of the American Medical Association at its June, 1960, meeting; namely:

1. that The Medical Society of Virginia do all in its power to secure participation by its members in Blue Shield plans;
2. that The Medical Society of Virginia request that the Blue Shield Boards in the State each meet at least once a year in joint session with the Society's Medical Service Committee;
3. that The Medical Society of Virginia encourage direct liaison between its component societies and the Blue Shield plan serving their areas to maintain the best possible physician-plan relationship; and
4. that The Medical Society of Virginia encourage the Blue Shield plans in the State in experimentation directed toward continued improvement in our voluntary prepayment and health insurance system.

After receiving assurance that membership in the American Association of Blood Banks would not affect relations with the Red Cross program, the House adopted the following:

Be It Resolved that the Society urge all hospitals in the State to join the American Association of Blood Banks and consider the advisability of the Association's "transfusion accreditation services".

Adopted also was a recommendation that the Society include a $100 appropriation in its 1961-62 budget for the Northeastern Clearing House of the American Association of Blood Banks.

The House then adopted the following resolution:

Be It Resolved that the California Relative Value Schedule be adopted as a guide and that those component societies interested in obtaining further information concerning the Schedule should indicate their willingness to be represented at a State or District meeting on the subject.

The Committee then recommended adoption of the following resolution:

Be It Resolved that the Legislative Committee of The Medical Society of Virginia seek the enactment of legislation deleting the word "sanitary" from Section 32-329 of the Virginia Code.

Dr. Shanholtz explained that this amendment would strengthen the Code as it applies to midwives. The resolution was then adopted.

The Committee recommended that the following resolution be approved in principle and be referred to the Committee on Medical Service urging favorable action and requesting constructive recommendations. In addition, component societies and hospital staffs would be urged to make a study of the Pennsylvania plan as it applies to improved medical service. The resolution was adopted:

Resolved that The Medical Society of Virginia inaugurate a "Program of Improved Medical Service", as outlined by Dr. John S. Donaldson of Pittsburgh and as described in the attached publication of the Pennsylvania Medical Society. (Publication referred to on file in State office).

The House then adopted the following resolution as recommended by the Committee:

Resolved that The Medical Society of Virginia reaffirm opposition amending the Blue Cross-Blue Shield statutes in such manner as to permit a voluntary, non-profit membership corporation to conduct a plan for furnishing pre-paid hospital, medical, surgical and dental service in Virginia.

The following resolution, upon the recommendation of the Reference Committee, was referred to the Committee on Medical Service for study:

Whereas: the supply and distribution of hospital beds is one of the basic determinants of the level of hospital usage; and

Whereas: an unduly high level of hospital usage

unnecessarily increases the public's expense of health care, be it paid directly or through prepayment plans;

THEREFORE, BE IT RESOLVED that The Medical Society of Virginia explore the possibility of laying long range plans for all new hospital construction and for all remodelling which involves an increase in the supply of hospital beds.

After approving a Committee request that the last paragraph be amended, the House adopted the following resolution:

WHEREAS: Milk is a food product of great value, but, unless properly handled and controlled, of great risk; and

WHEREAS: There has been controversy in Virginia regarding the areas of responsibility relative to the control of milk sanitation between the State Health and Agriculture Departments; and

WHEREAS: The last General Assembly referred the entire problem of the sanitary control of milk to a VALC committee for study and recommendations; and

WHEREAS: The State Departments of Health and Agriculture have cooperatively developed an agreement placing the responsibility for sanitary control of milk and milk products in the Department of Agriculture on the dairy farm and to the processing plant, and on the Health Department in the processing plant and to the ultimate consumer; and

WHEREAS: The cooperative agreement developed by the State Departments of Health and Agriculture promise effective control of the sanitary protection of milk for the consumer, and provide a sensible and reasonable division of responsibility between the State Departments of Health and Agriculture;

THEREFORE, BE IT RESOLVED that the House of Delegates of The Medical Society of Virginia, assembled in Annual Session, approve an agreement to equitably divide responsibility for milk sanitation between Health and Agriculture Departments.

Dr. Grossmann then introduced the following resolution which was adopted unanimously:

BE IT RESOLVED that this body enthusiastically commend the Joint Committee on Arrangements of the Norfolk County and Princess Anne County Medical Societies for the outstanding job it has done in connection with the Annual Meeting.

BE IT ALSO RESOLVED that the staffs of The Cavalier Hotel and the Virginia Beach Convention Center be likewise commended for their effort and cooperation in making this meeting a most successful and memorable one.

The House then heard a report from the Committee on Nominations. Dr. Rector, Committee Chairman, stated in closing that it was with great reluctance that the Committee has bowed to the request of Dr. Hundley that his name not be placed in nomination for re-election as Speaker. Dr. Rector went on to say that The Medical Society of Virginia owes Dr. Hundley a debt of gratitude for his many services performed so ably during the past twenty-five years. He then introduced the following resolution which was adopted by standing vote.

BE IT RESOLVED that the deeply felt gratitude of The Medical Society of Virginia be conveyed to Dr. John T. T. Hundley for his unselfish service and express our regret that he finds it impossible to continue as Speaker; and

BE IT FURTHER RESOLVED that the President direct the Editorial Board of the Virginia Medical Monthly to publish this resolution of gratitude to Dr. Hundley, Speaker of the House of Delegates of The Medical Society of Virginia.

There followed considerable discussion regarding proper procedure of nominating Councilors, Delegates to the American Medical Association, etc. The following nominations for Council were then received:

2nd District:	Dr. K. K. Wallace, Norfolk
4th District:	Dr. Fletcher J. Wright, Jr., Petersburg
6th District:	Dr. Alexander McCausland, Roanoke
8th District:	Dr. James G. Willis, Fredericksburg
10th District:	Dr. Richard E. Palmer, Alexandria

It was moved and seconded that the Secretary cast an unanimous ballot in their favor. The motion carried.

Received next were the following nominations from the 3rd and 4th Congressional Districts for the State Board of Medical Examiners:

3rd District:	Dr. Donald S. Daniel, Richmond
	Dr. W. H. Harris, Jr., Richmond
	Dr. Robley Bates, Richmond
4th District:	Dr. A. Tyree Finch, Farmville
	Dr. William Grossmann, Petersburg
	Dr. George Carroll, Suffolk

The name of Dr. Holmes Chapman was removed from the list of nominees from the 4th District when it became known that he was ineligible for reappointment. The nominees were approved and will be submitted to the Governor for his consideration.

The Committee's nominees for 1st, 2nd and 3rd Vice-Presidents were elected by suspending the rules

and casting unanimous ballots. They were:

1st Vice-President: Dr. Mallory S. Andrews, Norfolk

2nd Vice-President: Dr. W. C. Elliott, Lebanon

3rd Vice-President: Dr. Harold W. Miller, Woodstock

Dr. Russell Buxton, Newport News, was the Committee's nominee for President-Elect and was elected by acclamation—the Secretary being instructed to cast an unanimous ballot.

Nominations were then received for the office of Executive Secretary-Treasurer and Robert I. Howard was re-elected.

Dr. Fletcher J. Wright, Jr., was then elected Speaker of the House and Dr. Kinloch Nelson named Vice-Speaker.

The House was advised that the term of Dr. Vincent Archer as Delegate to the American Medical Association expires on December 31. The names of Dr. Archer and Dr. Hundley were then placed in nomination and the voting conducted by ballot. A motion to suspend the rules was rejected. Dr. Archer was re-elected as Delegate and Dr. Hundley designed his Alternate.

It was reported that the amendment to the Constitution adopted on the night of October 9 had been ratified during a general meeting on the morning of October 11.

The House then adopted proposed amendments to Article VI and Article VIII of the By-Laws. The amendments would clarify the By-Laws by eliminating reference to "Councilor Districts" and would permit each Congressional District to organize a district council rather than imply that it must be done.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD
Secretary

APPROVED: ALLEN BARKER, M.D.,
President

"Fifty Year Club" Members—1960

Albert Compton Broders, M.D.
Antonio Austin Burke, M.D.
Benjamin Leo Carleton, M.D.
Mark Roy Faville, M.D.
Fred Murchison Hodges, M.D.
Alfred Power Jones, M.D.
Paul Jones Parker, M.D.
James Henry Roberts, M.D.
Turner Southall Shelton, M.D.
Vaiden Aubrey Thornton, M.D.
John Field Thaxton, M.D.*
John Warwick Turman, M.D.
Oscar Wilde Ward, M.D.

* Died October 18, 1960.

Members Whose Deaths Have Been Reported Since 1959 Annual Meeting

Wyndham Bolling Blanton, M.D.
Adrian Lambeth Carson, M.D.
Edmund Madison Chitwood, M.D.
Robert Lawrence Corbell, Jr., M.D.
Charles Edward Conduff, M.D.
William Nelson Eddy, M.D.
William Latane Flanagan, M.D.
Louis Friedman, M.D.
John Francke Fox, M.D.
Ramon David Garcin, M.D.
Emmett Trible Gatewood, M.D.
John Henry Gilligan, M.D.
Robert Daniel Glasser, M.D.
Hugh Johnson Hagan, M.D.
Stafford Odell Handy, M.D.
Benjamin Carroll Henson, M.D.
Ursula N. Klein, M.D.
Robert Bruce Lawrence, M.D.
Emlyn Harrison Marsteller, Jr., M.D.
Moir Saunder Martin, M.D.
Dibrel Crowder Mayes, M.D.
Elisha Leavenworth McGill, M.D.
William Meyer, M.D.
Clarence Vernon Montgomery, M.D.
James Benton Nicholls, M.D.
Walter Joseph Otis, M.D.
Hubbard Corbin Padgett, M.D.
William Branch Porter, M.D.
William Daniel Prince, M.D.
Alfred Chambers Ray, Jr., M.D.
John Churchill Robertson, M.D.
James Waller Smith, M.D.
James Montrose Spencer, M.D.
Richard Nevitte Sutton, M.D.
Sidney Johnston Tabor, M.D.
Arthur Hastings Taylor, M.D.
Emmett Herman Terrell, M.D.
James Walker Walters, M.D.

Joint Medico-Legal Plan for Screening Medical Malpractice Cases

The fundamental purposes of this plan are two-fold; on the one hand, to prevent where possible the filing in court of actions against physicians and their employees for professional malpractice in situations where the facts do not permit at least a reasonable inference of malpractice; and, on the other hand, to make possible the fair and equitable disposition of such claims against physicians as are, or reasonably may be, well founded.

Both professional groups recognize that the mere filing of a malpractice action in court, however, unjustified medically it may be, causes substantial harm to the reputation

and practice of the physician concerned. Both groups recognize, at the same time, that persons having legitimate and meritorious grievances against physicians have heretofore often encountered the greatest difficulty in substantiating their claims with expert testimony in court.

The instrumentality hereby jointly created for the purposes outlined above shall be known as the Joint Screening Panel of The Medical Society of Virginia and Virginia State Bar, hereafter referred to as the Panel.

II

Composition of the Panel

The permanent Panel shall consist of the members of the Medico-Legal Committees of the Medical Society and Bar Association; provided, however, that neither the Society nor Association shall be represented by more than ten members on the Panel. The Panel may, by a majority vote of its permanent members, call in all or more other physicians or attorneys to sit as members of the Panel in consideration of any particular case. Any permanent member of the Panel shall disqualify himself from consideration of any case with which, by virtue of his circumstances or official position, he has or may have any personal or official connection, or as to which he feels that his presence on the Panel is for any reason inappropriate, considering the purposes of the Panel.

III

Cases Submitted

Any attorney may submit a case for the consideration of the Panel by addressing a request, in writing, signed by both himself and his client, to the Executive Secretary of The Medical Society of Virginia. This letter request shall contain the following:

1. A brief statement of the facts of the case, showing the persons involved, the dates, and the circumstances, so far as they are known, of the alleged act or acts of malpractice.

2. A statement authorizing the Panel, through its Chairman, to obtain access to all medical and hospital records and information pertaining to the incident and, for the purposes of its consideration of the matter only, waiving his client's privilege as to the contents of those records. Nothing in that statement shall in any way be construed as waiving that privilege for any other purpose or in any other context, in or out of court.

3. An agreement that the deliberation and discussions of the Panel and of any member of the Panel in its deliberation of the case will be confidential within the Panel and privileged as to any other person, and that no Panel member will be asked in any action to testify concerning the deliberations, discussion and internal proceedings of the Panel.

4. A request that the Panel consider the merits of the claim and render its report to him.

5. A statement that the attorney has read, understands and subscribes to the plan for screening medical malpractice cases and has advised his client thereof and that the client agrees to the submission of the facts pursuant to the plan.

6. A fifty dollar fee shall accompany each application for a hearing.

7. Written consent to a review by the Panel signed by the physician in question and his attorney, as the case may be, shall accompany each application.

Cases which the Panel will consider shall include all cases involving any alleged act of professional negligence occurring in Virginia, by a member of the Society, his servants, agents, or employees.

IV

Procedure Before the Panel

Requests for review submitted to the Executive Secretary of The Medical Society of Virginia shall be brought before the next meeting of the Joint Medico-Legal Committee of the Medical Society and Bar Association. At that time the Joint Committee, sitting as the permanent members of the Panel, shall determine what, if any, additional physicians or attorneys shall be called to sit in review of each case, and a date and time shall be set for the Panel's hearing of and consultation on each case. In no instance shall the date assigned be more than forty-five days after the receipt by the Executive Secretary of The Medical Society of Virginia of the request for review. In any hearing of any case brought before the Panel for review a quorum of the Panel for the purpose of deciding the issues submitted to it, shall consist of a majority of those permanent members of the Panel who have sat on all hearings of the issues.

At the time set for hearing of the case the attorney submitting it for review shall be present and shall state his case, including a resume of the facts constituting alleged professional negligence which he is prepared to prove. The physician or physicians against whom the claim is brought, and his attorney, may be present and may make a statement of his or their case. The monetary damages in any case, if there are any, shall not be subject of inquiry or discussion. The hearing will take the form of an informal discussion, and no official record shall be kept. When the parties present have been heard the Panel may take the case under advisement or it may request that additional facts, records, or other information be obtained and presented to it at a supplemental hearing, which shall be set for a date and time certain, not longer than 15 days from the date of the original hearing unless the attorney bringing the matter for review shall in writing consent to a longer period. Any second hearing shall be held in the same manner as the original hearing, and the attorney and physician concerned may be present.

Each case shall be taken under advisement by the Panel which shall consider all of the relevant material made available to it at the hearings or otherwise, in the form of statements or records. The Panel shall consider only whether, in the light of the material presented, there is a reasonable possibility that the acts complained of constitute professional negligence, and whether there is a reasonable medical probability that the claimant was injured thereby. The Panel shall make no effort to resolve disputed questions of fact except to determine whether in its judgment there is any substantial evidence to support the facts alleged by the claimant. The Panel

shall make no findings respecting the quantum of damages in the case, if any there are.

The Panel shall not make any effort to settle or compromise any claim, or express any opinion on the monetary value of any claim. All votes of the Panel on any such question before it will be by secret ballot. All decisions shall be taken by a majority vote of those permanent members of the Panel present who have sat on all hearings of the issue.

Its answers to these questions shall be submitted in writing, to the attorney bringing the matter for review, and, the physician and his attorney concerned. A copy of each report shall be retained in the permanent files of the Panel. The deliberations of the Panel shall be and remain a secret. The written opinion shall in every case be signed for the Panel by its elected chairman, and shall contain only the conclusions reached by a majority of its mmbers, except that any Panel member may request in writing that his dissent from the conclusions of the Panel be noted in the official records of the Panel, and may, at his election, append to the written report submitted to the parties concerned his own written dissenting opinion. The opinion reached in any case shall be treated in every respect as confidential between the Panel and its members on the one hand and the persons directly concerned in the case on the other hand.

In any case where the Panel has determined that the acts complained of were or reasonably might be professional negligence and that the claimant was or may have been injured thereby, the Panel, its members and the Medical Society will cooperate fully with the claimant in retaining a physician or physicians qualified in the field of medicine involved, who will consult with and testify on behalf of the claimant, upon his payment of a reasonable fee, to the same effect as if the said physician or physicians had been engaged originally by the claimant. In a case where the Panel has determined that there is no reasonable possibility that the acts complained of constituted professional negligence and/or no reasonable medical probability that the claimant was injured thereby, the attorney bringing the matter for review shall thereafter refrain from filing any court action based upon it unless personally satisfied that strong and overriding reasons compel such action to be taken in the interest of his client, and that it is not done to harass or gain unfair advantage in negotiation for settlement. It is not intended that the submission of any case to the Panel shall be considered as a waiver by the attorney or his client of their ultimate right to decide for themselves whether the case shall be filed. However, any attorney who brings a case before the Panel shall weigh its conclusions in the greatest professional good faith.

JOINT MEDICO-LEGAL COMMITTEE OF THE MEDICAL SOCIETY OF VIRGINIA AND VIRGINIA STATE BAR

HARRY ANDERSON, *Chairman*

Liaison Committee to State Bar Association:
EDWARD E. HADDOCK, M.D.
WLLIAM DOLAN, M.D.
G. T. MANN, M.D.
T. ADDISON MORGAN, M.D.
JOHN O. BOYD, JR., M.D.

To Confer with Medical and Allied Organizations

Your Chairman represented the Society at several meetings of the Health Careers Recruitment Committee of the Virginia Council on Health and Medical Care.

This Committee has been active and has accomplished much good work in helping to guide young people into medical and allied careers. Much interesting and well prepared literature has been distributed to schools so that local counsellors can advise students concerning careers in dietetics, audiology, dentistry, environmental sanitation, health education, hospital administration, medical records library, medical technology, medicine, occupational therapy, pharmacy, physical therapy, podiatry, practical nursing and professional nursing.

Professional speakers have been furnished when requested for schools in each group, if possible.

This work has been carried out under the energetic and stimulating leadership of Mrs. Cynthia N. Warren, Director of Health and Personnel Program, and the Committee commends to our Society her good work and that of her committee and urges that we cooperate in this work.

M. M. PINCKNEY, M.D., Chairman

Liaison to State Department of Health

Two matters of considerable importance have recently been referred to your committee for necessary action. One of these has to do with the number of previously unknown individuals whose deaths are attributed to tuberculosis, and the other the question of how best to utilize those beds in our tuberculosis hospitals which are becoming more and more available.

The committee was advised that last year there were 260 deaths caused by tuberculosis and 105 of these were individuals not previously known to local health department officials. Dr. Shanholtz and Dr. Wagner have expressed concern over this situation and believe some workable system, similar perhaps to that employed by the Committee on Maternal Health in its investigation of maternal deaths, should be devised. Such investigations would be not for the purpose of fixing blame on any physician but rather to pin-point causes and thereby take steps to improve the situation.

It is this committee's recommendation, therefore, that the President of The Medical Society of Virginia appoint a Special Committee on Tuberculosis to work with the State Department of Health in devising and carrying out a program designed to reduce the number of persons with tuberculosis not known to local and State health authorities.

With reference to proper utilization of beds at the State's tuberculosis hospitals, there are many factors to be considered. After giving the matter careful thought the committee recommends that the folllowing resolutions be adopted:

WHEREAS: There is a very definite need, increasingly recognized in this State and others for relatively short periods of hospitalization of patients with chronic chest conditions, other than tuberculosis, and

WHEREAS: Many patients with these conditions can, as a result of such care, be returned home to care for them-

selves and even to a greater or lesser degree restored to self-support, and

WHEREAS: Hospitalization in the University of Virginia Hospital for the full length of time required to insure the fulfillment of these purposes would be needless, and extremely costly, and

WHEREAS: Much money can be saved by the State by making available less expensive beds for completion of the patient's rehabilitation beyond the short term treatment in the University Hospital prescribed for the acute or sub-acute episode for which the patient is admitted to the University Hospital, and

WHEREAS: Less expensive infirmary type beds at Blue Ridge that could be used in cooperation with the University for immediate post-hospital care, are becoming increasingly available, and

WHEREAS: In addition a considerable number of ambulatory beds at Blue Ridge, no longer needed for tuberculosis, likewise could be utilized at a later stage by such patients for purposes of recuperation and completion of a durable rehabilitation—in preparation for return home.

THEREFORE, BE IT RESOLVED: That The Medical Society of Virginia approve the use of surplus beds at Blue Ridge Sanatorium, by cooperative arrangement with the University, for selected indigent and medically indigent patients afflicted with chronic chest conditions that could be benefited by periods of additional institutional care and rehabilitation. Such care, especially for those needing to return periodically, is available at the University itself only at far greater cost.

Such an arrangement would make it possible to make much more certain that full and lasting benefit would result from emergency or short term treatment in the University Hospital and would enable most to return home, without, by default, becoming permanent charges to the State.

It is understood that patients who obviously are not good prospects for the aforementioned program, i.e., plain domiciliary cases, would not be eligible for consideration; and any patient who, as a result of processing and evaluation was found not to be suitable for rehabilitation, as above described, would be discharged as soon as that fact were made known, i.e., domiciliary care would definitely not be a part of the program.

WILLIAM GROSSMANN, M.D., *Chairman*

Alcoholism

Symposium, which now means a learned discussion, in Greek times meant a drinking party. High thinking was, however, far from being neglected. In fact, the purest gems of philosophy, among them Plato's "Symposium", originated in these enjoyable gatherings. The Greeks derived more inspiration from their wine-cups than we get from our tea-cups (when "in our cups" we get only "stinking" thinking).

It is, indeed, unfortunate that a drinking party can no longer be a scene of learned discussions. It is rather a social gathering wherein people talk *at* each other rather than *to* each other. This becomes progressively amplified as the party nears its climax, so much so that nowadays the news commentators, in discussing the Washington Scene, refer to the "din index".

As stressed in our report last year, the cocktail party is regarded by many as the *sine qua non* for climbing the social ladder. We thus see laid out plainly before us the *case* for alcoholism, i.e., social pressures and exposures to alcohol as persistent as hurricane rains with conviviality and courtesy left far behind in this mad rush toward immoderation and excess in pursuit of ecstatic oblivion. The thin shell between heavy social drinking and alcoholism is cracked and the noise is drowned out by that of the breaking of the sound barrier at every cocktail party.

The social stage then stays primed to set off compulsive drinking in a certain percentage of our population. How do we of the medical profession propose to meet the challenge of alcoholism?

At our June meeting, your committee made the following observations:

> The responsibility for treatment of alcoholism is the responsibility of all physicians.
>
> The person who does not know how to handle his neurosis should first be helped by his family doctor and avoid excessive self-medication. The therapy of alcoholism should begin at home. The family has to be treated as a unit. Thus we start at the grass roots. Only those who cannot be handled at that level should be treated at a higher echelon.

We need to sharpen our diagnostic criteria and acumen. Just because a man has not missed a day from work does not preclude his being an alcoholic. Just as we should recognize multiple sclerosis before the "Charcot triad" develops, we should be keenly cognizant of early warnings of alcoholism. After all, alcohol may be only a contingent cause. Is the first drink non-traumatic, or is it associated with a problem that causes it to lead to alcoholism?

We propose a series of short monthly articles on the "Office Care of the Alcoholic Patient" as a practical approach to the problem. Then, as soon as the demand can be created, a workshop, or SYMPOSIUM (as mentioned at the beginning) can be held at a state meeting.

WILLIAM S. SLOAN, M.D., *Chairman*
JAMES ASA SHIELD, M.D.
EBBE C. HOFF, M.D.
WILLIAM F. GIBBS, M.D.
JOHN J. JOFKO, M.D.

Medical Education

The Committee has concerned itself entirely with the directive from the House of Delegates in 1959, to look into the problem of intern supply and distribution in Virginia Hospitals. The Committee thought it would be well to study the Michigan Plan for Post Graduate Education as a possible solution of the problem assigned for study in Virginia.

A Sub-Committee was set up to make this study and its report is herewith presented as submitted to the whole Committee.

Sub-Committee to Study the University of Michigan Medical Center's Postgraduate Program

A meeting of the Sub-Committee to Study and Evaluate the University of Michigan Medical Center's Postgraduate

Program was held at Society Headquarters on Tuesday, April 12, 1960. Attending were Dr. John C. Watson, Chairman, Dr. Wyndham B. Blanton, Jr., and Dr. William R. Sandusky.

Dr. Sandusky and Dr. Blanton described their trip to Ann Arbor and submitted individual reports written immediately following their interviews with those responsible for the Michigan Program.

Postgraduate medical education at the University of Michigan Medical Center is well supported, organized and directed. It encompasses three major activities in the field of postgraduate medical education: an extra mural program, an intra mural program, and an affiliated hospital program. It was generally agreed the overall program has many advantages, the principal ones being:

1. A probable improvement in the quality of medical practice in those areas of the state participating in the program.
2. A probable improvement in medical schools-community public relations.
3. An effective means of postgraduate education for the attending physicians of the participant hospitals.

Since the two Virginia medical schools jointly conduct an extra mural program and individually provide an intra mural one, the Sub-Committee concerned itself chiefly with consideration of the affiliated hospital program. Under this program house staff from the affiliated hospitals come to the University Medical Center for nine months of straight didactic teaching, with no clinical experience during that period. This is a key disadvantage and doubts as to the advisability of this have been expressed by many of the certifying boards. The Sub-Committee shares the doubt that this is effective teaching.

It is to be noted that in Michigan the non-university hospitals engaged in the plan are large ones. Presumably each has adequate clinical material and uses the plan simply to supplement its teaching program. For the most part this is not the case with Virginia's smaller hospitals, which perhaps need supplementary didactic teaching, but whose programs also need additional clinical experience, particularly in sub-specialties.

This program would involve a major expense to the State of Virginia in money and to the medical profession in effort. It is important that any program adopted should be a good bargain in terms of costs for educational return.

In summary, the Sub-Committee came to the following conclusions:

1. Duplication of the Michigan Affiliated Hospital Plan in Virginia does not, at this time, appear advisable because:
   a) A long period devoted solely to the didactic method probably is not the best form of teaching at the house officer level.
   b) It is doubtful if such a program would make it easier to obtain approval of residency programs.
   c) More residency openings would be created at a time when a shortage of applicants is a major prohlem.
   d) It is believed that the funds necessary for such a program could be utilized to better advantage.
2. A definite problem exists throughout the State with reference to postgraduate medical education. It is believed that other avenues should be explored with a view toward finding a favorable solution.

At a called meeting of the Committee on Education on July 7, 1960, the Sub-Committee's report was presented and it was decided by the Committee to present this report in its entirety for its valuable information to the Society.

It was the unanimous opinion of the members of Committee present that the Committee on Education should in the future explore further ways and means of a solution of the problems of Post-Graduate Medical Education in Virginia and it is so recommended by the Committee.

M. H. Harris, M.D., *Chairman*

AUDITOR'S REPORT

Officers and Councilors
The Medical Society of Virginia
Richmond, Virginia

Gentlemen:

We have made an examination of the books and records of The Medical Society of Virginia, Richmond, Virginia for the fiscal year ended September 30, 1960, and have prepared therefrom the Balance Sheet, Exhibit "A", Statement of Surplus, Exhibit "B", and Statement of Income and Expenses, Exhibit "C". With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We did not verify the accounts receivable by direct correspondence with the debtors, nor did we verify the accounts payable. It will be noted from the balance sheet that the amounts of these items are not material in relation to the financial position as a whole.

It is our opinion that the Balance Sheet, Exhibit "A", presents fairly the financial position of the Society at September 30, 1960, in accordance with generally accepted principles of accounting. The Statement of Income and Expenses, Exhibit "C", is prepared on a basis of cash actually received and disbursed.

Yours very truly,
Mitchell, Wiggins & Company
By Charles W. Anderson
Certified Public Accountant

BALANCE SHEET
September 30, 1960

Assets

General Fund		
Cash in banks		$ 82,240.41
Accounts receivable:		
Dues from members—Estimated collectible value—1960 dues—50 @ $25.00	$1,250.00	
Advertising—Virginia Medical Monthly	5,450.19	6,700 19

Investments:		
United States Savings Bonds—Present value (Schedule 1)		21,031.50
		$109,972.10
Plant Fund		
Land and buildings—At cost (Schedule 2)		$112,073.67
Furniture and equipment: (Schedule 2)		
Estimated value—October 1, 1950	$5,353.11	
Cost of acquisitions since October 1, 1950	7,701.30	13,054.41
		$125,128.08

Exhibit "A"

Liabilities and Surplus

General Fund		
Accounts payable:		
Preparation of Medical Journal—September, 1960		$ 3,187.86
Surplus:		
Available for appropriation—Balance—September 30, 1960 (Exhibit "B")		106,784.24
		$109,972.10
Plant Fund (Exhibit "B")		
Surplus invested in plant assets		$125,128.08
		$125,128.08

Statement of Surplus

For the Fiscal Year Ended September 30, 1960

Exhibit "B"

General Fund		
Balance—October 1, 1959		$ 91,535.10
Add:		
Excess of income over expenses (Exhibit "C")	$15,463.60	
Decrease in accounts payable	669.43	
Increase in bond interest adjustment	578.50	
Total	$16,711.53	
Deduct:		
Decrease in accounts receivable	1,462.39	15,249.14
Balance—September 30, 1960 (Exhibit "A")		$106,784.24
Plant Fund		
Balance—October 1, 1959		$125,128.08
Changes		None
Balance—September 30, 1960 (Exhibit "A")		$125,128.08

Statement of Income and Expenses

For the Fiscal Year Ended September 30, 1960

Exhibit "C"

		Actual	Budget
Gross Income			
Membership dues		$ 61,658.07	
Interest on investments		1,115.81	
American Medical Association		423.13	
Miscellaneous		387.49	
Virginia Medical Monthly:			
Advertising	$47,308.98		
Subscriptions—Nonmembers	387.05	47,696.03	
Total		$111,280.53	
Expenses			
Executive office:			
Salaries		$ 29,270.27	$ 29,635.00
Telephone and telegrams		1,438.72	1,550.00
Postage		1,931.30	1,250.00
Stationery and supplies		1,144.17	1,200.00
Office equipment—Repairs and replacements		2,140.55	2,000.00
Building maintenance and repairs—Net		4,689.98	4,100.00
Convention expense		(3,694.42)	1,000.00
Council and committee expenses		1,618.97	2,000.00
Delegates and executive assistant to A.M.A.		1,544.97	1,800.00
President's expenses		796.24	1,000.00
Traveling expenses		1,365.73	1,500.00
Preparation and distribution of medical journal		37,955.34	40,000.00
Scientific exhibits		1,878.25	2,500.00
Legal expenses		3,575.00	2,500.00
Walter Reed Commission		234.18	500.00
Woman's Auxiliary		80.68	100.00
Membership dues—Affiliated agencies		150.00	215.00
Editor—Virginia Medical Monthly		600.00	600.00
Special appropriations:			
Virginia Council Health and Education		3,000.00	3,000.00
American Medical Education Foundation		3,000.00	3,000.00
National Society on Medical Research		150.00	150.00
Rural Health		500.00	500.00
Student American Medical Association		250.00	250.00
Other special appropriations		200.00	850.00
Social security taxes		585.66	500.00
Miscellaneous		513.00	600.00
Total—Executive Office		$ 94,918.59	$102,300.00

Public relations department:		
Conference expenses	$ 786.70	$ 1,000.00
Radio and press	45.29	500.00
Literature and bulletins	66.35	200.00
Miscellaneous	.....	100.00
Total—Public relations department	$ 898.34	$ 1,800.00
Total Expenses	$ 95,816.93	$104,100.00
Excess of Operating Income Over Operating Expenses (Exhibit "B")	$ 15,463.60	

Plant Fund Assets
September 30, 1960

Schedule 2

Land and Buildings—At cost		
4205 Dover Road, Windsor Farms, Richmond, Virginia:		
Land	$ 22,706.58	
Office building	86,161.68	
Furnishings and decorations	2,205.41	$111,073.67
Walter Reed House, Belroi, Virginia		1,000.00
Total Land and Buildings		$112,073.67
Office Furniture and Equipment		
Estimated insurable value at October 1, 1950		$ 5,353.11
Purchased subsequent to October 1, 1950:		
Cost during fiscal year ended September 30, 1951	$ 951.65	
Cost during fiscal year ended September 30, 1959	6,749.65	7,701.30
Total Office Furniture and Equipment		$ 13,054.41
Total Plant Fund Assets (Exhibit "A")		$125,128.08

Financial Condition

The financial condition of the Society at September 30, 1960, is shown in the Balance Sheet, Exhibit "A", on the accrual basis. A summary of the financial condition at September 30, 1960, is presented as follows in comparison with the two preceding years:

	September 30,		
Assets	1960	1959	1958
Cash	$ 82,240.41	$ 66,776.81	$ 54,466.41
Accounts receivable	6,700.19	8,162.58	6,726.18
Investments	21,031.50	20,453.00	19,953.50
Land, buildings and equipment	125,128.08	125,128.08	132,469.75
Totals—All Funds	$235,100.18	$220,520.47	$213,615.84

Liabilities, Surplus and Fund Balance			
Liabilities:			
Accounts payable	$ 3,187.86	$ 3,857.29	$ 3,064.80
Surplus:			
General fund	106,784.24	91,535.10	78,081.29
Fund balance:			
Plant fund	125,128.08	125,128.08	132,469.75
Totals—All Funds	$235,100.18	$220,520.47	$213,615.84

Analyses and explanations of the more important balance sheet accounts follow:

Cash—$82,240.41

Recorded cash receipts were accounted for by deposits in the banks and disbursements were supported by properly signed and endorsed paid checks. Balances on deposit at September 30, 1960, were verified by direct correspondence with the banks as follows:

First and Merchants National Bank—Checking account	$ 48,716.55
Bank of Virginia—Savings account	8,705.08
Southern Bank and Trust Company—Savings account	1,209.27
Franklin Federal Savings and Loan Association—Savings account	11,773.19
Richmond Federal Savings and Loan Association—Savings account	11,836.32
Total	$ 82,240.41

Investments—$21,031.50

United States Savings Bonds, as shown in Schedule 1, were verified by inspection of the securities held in a safe deposit box at First and Merchants National Bank, Richmond, Virginia. They are shown in the balance sheet at their current redemption value.

Plant Fund Assets—$125,128.08

Details of the plant fund assets are shown in Schedule 2. No indebtedness against these assets was disclosed by the records.

Operations

The income and expenses for the fiscal year ended September 30, 1960, are shown in Exhibit "C", prepared on the cash receipts and disbursements basis. A summary of income, expenses and capital outlays for the current year are compared with that of the two preceding years as follows:

	Fiscal Year Ended September 30,		
	1960	1959	1958
Income			
Membership dues	$ 61,658.07	$ 57,935.24	$ 54,354.49
Medical monthly publication	47,696.03	46,630.67	43,045.56
Other operating income	1,926.43	1,439.71	6,499.76
Total	$111,280.53	$106,005.62	$103,899.81

Expenses			
Executive office	$ 94,918.59	$ 89,745.05	$ 81,774.12
Public relations department	898.34	681.59	820.23
Total	$ 95,816.93	$ 90,426.64	$ 82,594.35
Operating Income Over Expenses	$ 15,463.60	$ 15,578.90	$ 21,305.46
Other Income			
Proceeds from sale of property	.....	23,715.15	.....
Total	$ 15,463.60	$ 39,294.13	$ 21,305.46
Capital Outlay	.....	26,983.73	65,008.01
Income Over (Under) Expenses and Capital Outlay	$ 15,463.60	$ 12,310.40	($ 43,702.55)

In General

The bookkeeping records were found to have been kept in a satisfactory manner.

Insurance in force at September 30, 1960, determined from policies on file, was as listed below:

Fire and Extended Coverage		
Office furniture and fixtures		$ 14,000.00
Building—Windsor Farms, Richmond, Virginia		69,000.00
Walter Reed House, Belroi, Virginia		2,000.00
Liability—Owner's, Landlord's and Tenant's		
Bodily injury	$25,000.00	$ 50,000.00
Property damage		5,000.00
Fidelity Bonds		
Executive Secretary—Treasurer		$ 5,000.00
Secretary		5,000.00

Investment Bonds
September 30, 1960

Schedule 1

Bonds	Series	No. Bonds	Dated	Due	Value at Maturity	Cost	Value at 9-30-59	Value at 9-30-60
U. S. Savings	F	6	10-1-49	10-1-61	$ 3,000.00	$ 2,220.00	$ 2,742.00	$ 2,835.00
U. S. Savings	V	13	5-1-55	5-1-67	6,500.00	4,680.00	5,057.00	5,200.00
U. S. Savings	V	11	12-1-55	12-1-67	11,000.00	7,920.00	8,448.00	8,679.00
U. S. Savings	V	1	12-1-55	12-1-67	500.00	360.00	384.00	394.50
U. S. Savings	V	1	1-1-56	1-1-68	1,000.00	720.00	768.00	789.00
U. S. Savings	V	2	2-1-56	2-1-68	2,000.00	1,440.00	1,536.00	1,578.00
U. S. Savings	V	2	7-1-56	7-1-68	2,000.00	1,440.00	1,518.00	1,556.00
Total					$26,000.00	$18,780.00	$20,453.00	$21,031.50

(Exhibit "A")

Arthur Godfrey Honored

Arthur Godfrey, famous radio and television personality, has received the first medallion of merit ever awarded by The Medical Society of Virginia. The silver medallion was presented Godfrey during the Society's annual Banquet at Virginia Beach.

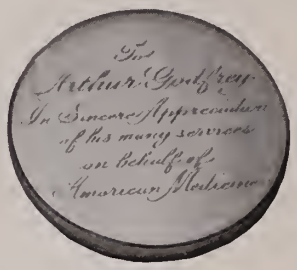
An overflow gathering of 550 heard Dr. Allen

Barker thank the entertainer for his many services on behalf of American medicine, and urge him to continue his good work. Godfrey has repeatedly urged his audiences to see their family physicians often in the interest of preserving good health and has cited his own victories over recent illnesses as proof of what modern medicine can accomplish.

In accepting the award, Godfrey told of the work being carried on by the African Research Foundation, and alerted the profession to possible calls for assistance and advice. He stated that he would personally deliver a Piper Apache airplane to Foundation officials next spring and will fly several of the missions so vital to the project. Planes must often land on small strips carved out of the jungle in order to pick up patients who must be flown to treatment centers without delay.

The medallion of merit was actually the result of an idea by Dr. Charles E. Horton, Co-Chairman of the Local Committee on Arrangements for the 1960 Annual Meeting. The idea caught on immediately and the choice of Godfrey as recipient was unanimous.

Featuring an embossed Seal of the Society on one side and an appropriate inscription on the other, the medallion was struck by one of the nation's outstanding engravers, and was presented in a silver case bearing Godfrey's signature.



Current Currents

PHYSICIAN DRAFT: Late news releases from Washington give every indication that Selective Service is seriously considering an early draft of physicians. The needs of our armed forces are reportedly not being met and the government has reminded young physicians completing intern and residency programs of their military obligations.

CARE OF AGED: Vice-President Nixon has urged prompt implementation of the Federal-State program passed by Congress just before adjournment. He has indicated that actions by the states will be observed closely.

As this issue of Current Currents goes to press, it is interesting to note that only eleven states have reported any intention of participating under the Mills plan. Many observers believe that much more must be done if more drastic legislation by the next Congress is to be avoided.

A committee of The Medical Society of Virginia met on November 21 with representatives of the State Department of Welfare to discuss the new program and its implementation in Virginia.

FOREIGN GRADUATES: According to the Washington Report on Medical Sciences, the State Department and the Department of Health, Education and Welfare have become involved in the controversy over alien, foreign trained interns and residents in U. S. hospitals who have not yet passed their proficiency examinations. As a result, the AMA Council on Medical Education and Hospitals has called a special meeting in Washington on December 8. The big question is whether or not hospitals should lose their accreditation if they do not drop interns and residents who have not passed their examinations by the end of 1960.

The Departments of State and HEW, concerned over the international aspects, apparently feel that a wholesale discharge of these young physicians could prove politically embarrassing.

SECRETARY OF HEW: There is considerable speculation these days concerning President-Elect Kennedy's choice for the important post of Secretary of Health, Education and Welfare. The question has been raised as to whether or not he should appoint a doctor of medicine to this cabinet post.

It has been pointed out that any physician named to this post would have to meet many requirements. He would have to possess administrative experience, have a working knowledge of the government role in medical and related services and be familiar with relationships that exist between medical, educational and welfare institutions and the federal government.

Physicians mentioned in connection with the post include Dr. Franklin D. Murphy of UCLA, Dr. Norman H. Topping of the University of Southern California and Dr. James Dixon of Antioch College.

The first Secretary of HEW was Mrs. Oveta Culp Hobby. Her successor was Marion B. Folsom, who, in turn, was succeeded by Arthur S. Flemming.

AMEF: All physicians recently received a progress report from the American Medical Education Foundation. The report confirmed the fact that fiscal 1959 was the Foundation's best year. A total of $1,198,334 shows an increase of 17.5% in physicians contributions.

An accompany letter urged continued cooperation and pointed out that now is the time to send in that contribution for 1960.

MEDICAL HISTORY OF WAR: Many of the medical lessons learned during World War I had to be relearned under fire during World War II because of paucity of distribution of the World War I medical history.

Lieutenant General Leonard D. Heaton, The Army Surgeon General, in an endeavor to prevent this costly relearning process, in the unhappy event of another war, has directed the preparation, publication, and distribution of the "History of the Medical Department, United States Army, in World War II". General Heaton is particularly anxious that information of the existence and availability of this History be circulated widely among the profession, both military and civilian.

Of the 48 volumes programmed for the series, 15 have been published and can be purchased at modest cost from The Superintendent of Documents, Government Printing Office, Washington 25, D.C. The set of 15 volumes may be purchased for $66.50 or individual volumes can be obtained at remarkably low prices. Commanding officers of medical units may requisition copies for their Medical Units libraries by submitting DA Form 17 directly to The Historical Unit, U.S. Army Medical Service, Washington 12, D.C. ATTEN: Promotion Branch.

DID YOU KNOW? The first blood bank in the United States was established in 1937. The most recent count shows nearly 2,500.

On any one day, there are about 750,000 patients in our mental hospitals, which is as many as in all other hospitals combined.

State mental hospitals over the nation spend an average of $4.06 a day per patient which covers food, shelter, supplies, doctors and other staff, while general hospitals spend $28.27 a day per patient.

Woman's Auxiliary . . . .

President ..... Mrs. F. Clyde Bedsaul, Floyd
President-Elect ... Mrs. William F. Grigg, Jr., Richmond
Vice-Presidents ..... Mrs. Robert Keeling, South Hill
Mrs. Theodore McCord, Fairfax
Mrs. Byron Eberly, Portsmouth
Recording Secretary . Mrs. A. B. Gravatt, Jr., Kilmarnock
Corresponding Secretary .... Mrs. J. Glenn Cox, Hillsville
Treasurer ..... Mrs. James M. Moss, Alexandria
Publications Chairman Mrs. Custis L. Coleman, Richmond
Directors ..... Mrs. Walter A. Porter, Hillsville
Mrs. Charles A. Easley, Jr., Danville
Mrs. John R. St. George, Portsmouth

Letter from the President.

Dear Presidents and Auxiliary Members,

By this time every Auxiliary should be well along with its program for the year. Each member is of importance, and can mean much in her own auxiliary in carrying out the various projects. As we recruit new members for the auxiliary, we will obtain a better relationship in our medical family. Our National Membership chairman, Mrs. W. G. Thuss, has said, "It is inconceivable to auxiliary members that a physician's wife should not want to ally herself with an organization whose sole purpose is to carry out the projects referred and approved by the medical profession. The program is diversified. Every type of service may be contributed to a community through the auxiliary—religious, cultural, civic, educational and health. Lending her authority and prestige in her work are 80,000 women who stand solidly behind her. This is a privilege no doctor's wife can afford to overlook today."

All State chairmen need your help. As we become informed about the *entire* program of the Auxiliary, our interest in each committee will take on new meaning. You should hear from each chairman soon concerning the work of each committee. State chairmen should send presidents and local chairmen the same letter in planning the component auxiliary work.

Our mid-year conference and Board meeting will be January 18, 19, 1961, at The Medical Society of Virginia Headquarters Building, 4205 Dover Road, Richmond. Please plan to attend, all presidents and presidents-elect, and all state chairmen. A written report of your work, to that time, is requested. An informative program is being planned for you.

After we have done our work and had our programs, let us tell others about it. *Please* give an account of your meetings, briefly stating the essence of the speaker's message, and the projects the auxiliary is engaged in to the local papers. Then, send an account of it, for the Auxiliary page of the Virginia Medical Monthly, to Mrs. Custis L. Coleman, Publications Chairman, 5513 Matoaka Road, Richmond.

May the blessings of the holiday season be yours,

Sincerely, your president

Rosamond Bedsaul, (Mrs. F. Clyde)

Committee Chairmen 1960-1961

Organization and Membership
Mrs. William F. Grigg, Jr., Richmond
Finance ..... Mrs. Walter A. Porter, Hillsville
Program ..... Mrs. Robert Keeling, South Hill
Legislation and Key Woman
Mrs. Wyndham B. Blanton, Jr., Richmond
Community Service ... Mrs. Hugh Stokes, Williamsburg
Revisions ..... Mrs. Raymond S. Brown, Gloucester
Publications ..... Mrs. Custis L. Coleman, Richmond
Bulletin ..... Mrs. C. C. Hatfield, Saltville
Health Careers ... Mrs. Jos. E. Gardner, Harrisonburg
Health Education
Mrs. Milton D. Friedenberg, Richmond
Safety ..... Mrs. Fredric Delp, Pulaski
Civil Defense ... Mrs. George Chucker, Clifton Forge
Leigh-Hodges-Wright ... Mrs. Ed. S. Ray, Richmond
Members-at-Large ... Mrs. W. N. Thompson, Stuart
Philanthropic Fund ... Mrs. Ralph Landes, Danville
American Medical Education Foundation
Mrs. H. L. Bastien, Arlington
Student Loan Fund ... Mrs. Lee S. Liggan, Irvington
Research and Romance of Medicine
Mrs. C. Sherrill Armentrout, Harrisonburg
Councilor to Southern Medical Association
Mrs. James M. Moss, Alexandria
Nominating ..... Mrs. Carl P. Parker, Falls Church

Editorial....

On the Speed of Surgery

SPEED PER SE in the conduct of surgery, to the exclusion of the other technical niceties is, fortunately for all concerned, obsolete. In the early days of the modern inception of surgery, the excellence of the surgeon was usually determined by the rapidity with which he attacked, or possibly assaulted, the tissues involved. Speed was of the essence, and resulted in small incisions, poor exposure, Gargantuan suture material, brutal handling of tissue, gigantic rough instruments and frequently, a total lack of appreciation of the physiology of the human body both locally and systemically. Due to the resilience of Nature; the inherent, almost irrepressible healing tendency endowed us by a kind Providence; and good luck, most patients subjected to this dignified mayhem survived. Although those pioneer surgeons violated most of our concepts of proper technique and knew little of surgical physiology, they had one factor working for them, and *that was the time element.* The shortness of the operative time allowed them to finesse the other refinements, which we believe essential today, and to get by with an acceptable morbidity and mortality considering the era in which they worked and their lack of modern adjunctive measures.

The pendulum apparently, as it so often does, has now swung ridiculously in the other direction, and one sees long and well-trained young surgeons embarking on their surgical careers, with apparently the avowed concept that the length of the surgical maneuver has nothing to do with survival and morbidity statistics. The same well-prepared young man will pre-operatively secure blood chemistries ad infinitum, electrocardiograms ad nauseum, x-rays to the point of financial collapse of the patient, and consultations to the nth degree, but he will then *subject a poor risk candidate to an unnecessarily long procedure, usually under* general anesthesia. (He rarely believes in regional or local anesthesia.) His defense, if challenged, is that "nowadays with good anesthesia there is no excuse for rushing through surgery". He feels that the good *long* procedure is superior to the *good operation done in a reasonable length of time.* The same surgeon viewed several years later after some maturation surgically has occurred is seen frantically endeavoring to accelerate his surgery, for he has learned by bitter experience that if he is to salvage many poor risk patients who require urgent operation the time elements cannot be neglected. To spend one and one-half hours doing an infant hernia which should take fifteen or twenty minutes, to take four and one-half to six hours on a gastric resection that merits at the most two and one-half to three hours, and to struggle six hours on an abdomino-perineal proctectomy that should be consummated in three hours is to reveal a certain amateur station in surgery; and no appreciation of the risk involved, despite careful attention to *all* other details. It is bad enough to perform this kind of surgery, but the greatest damage done is in teaching this doctrine to young house officers. Admittedly, some procedures are inherently long, and in other unforeseen problems and difficulties arise which increase operative

time, but there is no logic to *unnecessarily* challenging the patient's physiology, stamina and endurance.

Anesthesia and surgical operations produce profound local and general abnormalities. The sooner a surgical procedure can be consummated with gentleness, accuracy, and thoroughness, the quicker the patient can be converted from a potentially disastrous situation to a reasonably hazardous but normal post-operative state. Surgery inherently has enough risks under the best of conditions without greatly magnifying them without reason. Anesthesiologists will be the first to defend the shortest possible procedure consistent with good, sound principle and technique, for they see all too often the increased problems that arise in the long anesthetized and surgically traumatized individual. I know of no post-operative complications, both locally and generally, that are not increased by long surgery, particularly under inhalation anesthesia.

To maintain, as others have stated, that a good radical mastectomy cannot be performed in less than five hours is to emphasize one phase of surgery to the exclusion of many others. This is particularly obvious when the long mastectomy may well have no better five-year survival rate than the properly conducted one which was done just as adequately in two and one-half to three hours. Indeed, the latter may well include a large skin graft which the former one neglected. So often this "justification for slowness" is a defensive mechanism, and may well represent a lack of sureness, decisiveness, and technical facility!

This is no apology for rapidity in itself, and I hold no brief for the so-called pure surgical "speed merchants". I am convinced, however, that there is a definite correlation between length of surgery and surgical complications, both immediate and delayed. To ignore the time element in surgery is just as negligent as to ignore blood transfusions, intravenous fluids, electrolyte balance, good anesthesia, careful pre-operative evaluation, and any of the other many modern adjuncts which we believe to be so important. Every surgical procedure, to be properly executed, need not become a technical marathon; and it is not inconsistent with good surgery to proceed with dispatch provided other basic fundamentals are not sacrificed. The current trend in the teaching of residents that the length of surgery is not important should be reversed to a more sound, reasonable middle ground.

Charles E. Davis, Jr., M.D.

Society Activities . . . .

Chest Physicians.

The Virginia Chapter of the American College of Chest Physicians met at a luncheon meeting on October 10th at Virginia Beach. Seventeen members were present. Dr. G. W. H. Schepers, Wilmington, Delaware, was guest speaker.

The present officers were nominated and re-elected for a second term as follows: President, Dr. Charles G. Pearson, Charlottesville; vice-president, Dr. G. E. Ewart, Richmond; and secretary-treasurer, Dr. C. C. Smith, Catawba.

American College of Physicians.

The Virginia Section of the College held its annual meeting at Virginia Beach on October 10th with 63 members and guests in attendance. Following lunch, there was a brief business session at which Dr. Kinloch Nelson, College Governor for Virginia, spoke, and Dr. Charles M. Caravati, College Regent, gave a report of the annual meeting of the College. He told of the conferring by the College of the Mastership on Dr. J. Morrison Hutcheson, Richmond. Dr. Hutcheson also addressed the group.

Dr. James M. Moss, Alexandria, was elected Chairman of the Virginia Section and Dr. William H. Harris, Richmond, was re-elected secretary-treasurer.

The Annual Scientific Assembly of the Section will be held at the Charter House Motel, Alexandria, on February 18th.

Virginia Obstetrical and Gynecological Society.

At the annual meeting held on October 10th, Dr. Lawrence L. Hester, Chairman of the Department of Obstetrics and Gynecology, Medical College of South Carolina, was guest speaker.

The following officers were elected: President, Dr. P. Harrison Picot, Alexandria; president-elect, Dr. A. Tyree Finch, Farmville; vice-president, Dr. W. Norman Thornton, Jr., Charlottesville; and secretary-treasurer, Dr. Brock D. Jones, Jr., Norfolk.

The Virginia Society of Internal Medicine

Met at the Cavalier Hotel on October 10th, under the presidency of Dr. R. Bryan Grinnan, Jr., Norfolk. Forty-eight members were present. Eleven new members were accepted, making the total one hundred and eight.

Much of the meeting was taken up in a discussion of revision of the by-laws, under the chairmanship of Dr. Ben C. Jones, Alexandria. It was decided that a member must be either a Diplomate of the American Board or a member of the College of Physicians, or, in certain instances, an outstanding established internist who is Board qualified but not a Diplomate or member of the College.

Dr. William A. Read, Newport News, is secretary-treasurer of this Society.

Virginia Orthopedic Society.

This Society held its annual business meeting on October 10th, under the presidency of Dr. William M. Deyerle, Richmond.

The most important business transacted was unanimous approval of a motion to express to the Virginia Hospital Association a complete opposition to the practice of Blue Shield making payments to osteopaths and chiropodists for treatment rendered to subscribers under the Blue Shield plan for payments particularly in treatment of fractures, injuries and acute trauma.

Dr. Philip Trout, Roanoke, was elected president for 1961; Dr. Louis Ripley, Roanoke, president-elect; and Dr. Earnest B. Carpenter, Richmond, re-elected secretary-treasurer.

The Virginia Surgical Society

Had a luncheon meeting on October 10th at Virginia Beach. There were 32 members and one guest in attendance. Dr. Robert L. Payne, Jr., Norfolk, is president and Dr. Carrington Williams, Jr., Richmond, secretary-treasurer.

The next meeting of this Society will be held in Williamsburg, May 20th.

Mid-Tidewater Medical Society.

At a meeting of this Society on October 26th, Dr. S. R. Ransone, Mathews, was elected president. Dr. M. H. Harris, West Point, was re-elected secretary, and Dr. W. H. Hosfield, also of West Point, treasurer.

The Virginia Diabetes Association

Held a meeting of the officers and trustees on October 10th at Virginia Beach, with the president, Dr. Robert K. Maddock, Norfolk, presiding. It was decided that the next program would have as its theme

"Early Detection of Diabetes and the Benefits to the Patients Therefrom". The next meeting will be at the Sheraton Park Hotel in Washington, D. C., May 12th.

There was a brief discussion about Virginia Public Health Department examinations of blood sugars. Dr. William R. Jordan was appointed as their consultant. Apparently there are quite a few undiagnosed diabetics in the State that may be uncovered by these screening methods.

There was a discussion on the functions of the Association and it was decided that each member should take a more active part in speaking on diabetes at the staff meetings and state meetings of the various component societies of The Medical Society of Virginia.

Dr. L. Benjamin Sheppard, Richmond, is secretary-treasurer of this Association.

Roanoke Academy of Medicine.

At the meeting of the Academy on October 3rd, Dr. Hugh Trout was installed as president. Dr. J. Lawson Cabaniss is president-elect; Dr. Wade H. Saunders, vice-president; and Dr. Walter S. Johnson, secretary-treasurer. Dr. W. Conrad Stone was elected chairman of the executive committee.

News . . . .

New Members.

Since the list published in the November issue of the Monthly, the following new members have been received into membership in The Medical Society of Virginia:

Charles Lee Ferguson, M.D., Norfolk
Philip Frederick, Jr., M.D., Richmond
Lloyd Tayloe Griffith, M.D., Mt. Holly
Edward Sidney Hunter, Jr., M.D., Norfolk
Panos M. Ioakimidis, M.D., Richmond
Fletcher Bailey Owen, Jr., M.D., Richmond
William Bryant Pollard, M.D., Charlottesville
Harry Shepard Rowland, Jr., M.D., Richmond
William Allen Scoggin, M.D., Charlottesville
Antonio Gomez Velo, M.D., Richmond
James Oliver Willie, M.D., Norfolk

Golf Tournament

Dr. Robert McLelland, Danville, topped a record field of 100 which toured the beautiful Princess Anne course at Virginia Beach on October 10 in quest of the coveted Challenge Cup donated by the physicians of northern Virginia. Dr. McLelland finished with a fine 76, after fighting off the challenge of Dr. Kinloch Nelson, Richmond, and Dr. Joseph Chinn, Tappahannock, who fired a 78 and 79 respectively.

Low net honors went to Dr. J. E. George, Roanoke, Dr. Frank Pole, Richmond, and Dr. O'Neil.

Blind bogey prizes went to Dr. Warren Gregory, Winchester, and Dr. Robert Cassidy, Culpeper.

Auxiliary Golf Tournament

Mrs. William A. Read, Newport News, was the winner of the 1960 tournament of the Woman's Auxiliary at Virginia Beach. Low net honors went to Mrs. C. J. Devine, Norfolk, and a special low putts award to Mrs. John Hazel, Arlington.

Dr. Rea Again Honored.

Dr. Montie L. Rea, Charlottesville, has been presented the Charlottesville Exchange Club's first "Golden Deeds Award". The award is presented to a citizen who has made outstanding contributions through good deeds and community service. Dr. Rea has practiced in Charlottesville since 1905, is eighty-three years of age, and has no plans to retire.

Dr. Russell V. Buxton,

Newport News, has recently been installed as president of the Peninsula Unit of the American Cancer Society.

Fellows of American College of Surgeons.

The Clinical Congress of the College was held in San Francisco, October 10-14, and approximately 1,175 surgeons were received as new fellows. The following are from Virginia:

Allan Hall, M.D., Annandale
J. Hamilton Allan, M.D., Charlottesville
Robert G. Kindred, M.D., Charlottesville

Cary N. Moon, Jr., M.D., Charlottesville
Albert J. Paquin, Jr., M.D., Charlottesvile
Murdo M. Mackay, M.D., Clifton Forge
Garrett M. Swain, M.D., Falls Church
Harry M. Henderson, Jr., M.D., Ft. Belvoir
Thomas W. Sale, M.D., Hampton
William W. Old, III, M.D., Lexington
Richard N. deNiord, Jr., M.D., Lynchburg
Benjamin S. Perkins, M.D., Marion
Jack A. Lawson, M.D., Newport News
Oswald W. Hoffler, M.D., Norfolk
Levi Old, Jr., M.D., Norfolk
Virgil A. Beuerman, M.D., Portsmouth
Philip O. Geib, M.D., Portsmouth
James W. Brooks, M.D., Richmond
Yale H. Zimberg, M.D., Richmond
Lee W. Shaffer, M.D., Roanoke
Wirt L. Davis, M.D., South Hill
Carrington Harrison, M.D., Winchester

Dr. J. Marshall Winkfield,

Strasburg, has been appointed to the School Trustee Electoral Board of Shenandoah County.

Drs. Caldroney and Kretz.

Dr. Thomas W. Caldroney and Dr. Wieman H. Kretz, Newport News, were recently presented plaques in honor of years of "unselfish service" conducting the clinic for diagnosing palsy cases among Peninsula children. The award was presented by the Peninsula Cerebral Palsy Training Center. The doctors have examined more than 1000 palsied children, with no personal remuneration during the past seven years.

Virginia Tuberculosis Association.

Six grants for research on respiratory diseases during the year 1960 have been made to Virginians by the Joint Committee on Research and Education of the Virginia Tuberculosis Association, the Virginia Thoracic Society, and the Virginia Conference of Tuberculosis Workers.

Grants to the Medical College of Virginia were:

$5,000 for a study of sarcoidosis by Dr. Edwin L. Kendig, Jr., Director of the Child's Chest Clinic and associate professor of pediatrics;

$3,879 for a study of mediastinal stabilization in the dog following pneumonectomy by Dr. Yale H. Zimberg, instructor in surgery; and

$1,000 for a study of P waves in tuberculous pericarditis by Dr. Robert P. Moore, Assistant Medical Director of the Ennion G. Williams Hospital.

The University of Virginia School of Medicine received these grants:

$4,559.40 for studies of factors in blood cells of rabbits which inhibit tuberculosis, by Dr. Quentin N. Myrvik, asociate professor of microbiology;

$1,380 for a study of lung compliance and airway resistance in asthma by Dr. John L. Guerrant, associate professor of internal medicine; and

$1,000 towards a teaching fellowship in thoracic surgery to Dr. Richard Harrod Blank, of the University of Virginia Hospital.

These grants were made from Christmas Seal funds allocated for research by local tuberculosis associations in Virginia.

Dr. Alvin C. Wyman,

Alexandria, is the new president of the Alexandria Unit of the American Cancer Society.

Dr. Sanger Receives Award.

Dr. William T. Sanger, chancellor of the Medical College of Virginia, has been awarded the first annual citation of the Virginia Council for Exceptional Children. The award was given for his work with crippled children. He is president of the Virginia Society for Crippled Children and Adults.

Polycythemia in Association with Neoplastic Disease.

The cooperation of physicians is requested in a study on the association of polycythemia with neoplastic disease being conducted by the metabolism service of the National Cancer Institute in the Clinical Center of the National Institutes of Health. An elevation of the circulating red cell volume in the absence of leucocytosis and thrombocytosis has been noted in a significant number of patients with renal tumors and cerebellar hemangioblastomas and rarely in patients with uterine fibroids, pheochromocytomas, and other neoplasms. The presence of an erythropoiesis stimulating factor has been demonstrated in homogenates of the cerebellar, renal and pheochromocytoma tumor tissue. This study has its purpose the determination of the chemical nature and mode of action of the erythropoiesis stimulating factor produced by these tumors.

Physicians who wish to have their patients considered for this study at the National Cancer Institute may write or call: Dr. Thomas A. Waldmann, Na-

tional Cancer Institute, Bethesda 14, Maryland. (OLiver 6-4000, Ext. 3667)

Dr. William Bickers,

Richmond, is serving a one year appointment as visiting professor of obstetrics and gynecology at the American University of Beirut, Beirut, Lebanon.

This medical school was founded in 1866 and for nearly a century has brought modern standards of medical teaching and research to the Middle East. It is an American Medical School chartered under the State of New York and administered by the Board of Regents in New York.

The Gill Memorial Eye, Ear and Throat Hospital,

Roanoke, will hold its thirty-fourth Annual Spring Congress in Ophthalmology and Otolaryngology and Allied Specialties, April 10 through April 15, 1961. There will be twenty guest speakers and fifty lectures.

Proctology Award.

The International Academy of Proctology announces its Annual Cash Prize and Certificate of Merit Award Contest for 1960-61. The best unpublished contribution on Proctology or allied subjects will be awarded $100.00 and a Certificate of Merit. All entries are limited to 5,000 words, must be typewritten in English, and submitted in five copies. They must be received no later than the 1st of February, 1961. Entries should be addressed to Alfred J. Cantor, M.D., Executive Officer, International Academy of Proctology, 147-41 Sanford Avenue, Flushing 55, New York.

Doctor's Suite.

Splendid location in fastest growing community in suburban Washington, Hollin Hall Village, Fairfax County, Virginia. Surrounded by over 3,000 detached homes, ranging in value from $18,000 to $40,000, with only one general practitioner in the community, who recently moved from this suite to larger quarters. Space consists of five rooms, including reception room and all necessary space for practical operation. Completely heated and air conditioned. Write Hollin Hall Village, Inc., P. O. Box 1039, Alexandria, Virginia or phone SOuth 5-5066. (*Adv.*)

For Sale.

Picker Constellation 90-90 degree tilt. Photo-Fluoro Timed Serialograph 300 MA new condition. Also sundry cassettes and other equipment for x-ray office. Write #925, care the Virginia Medical Monthly, 4205 Dover Road, Richmond 21, Virginia. (*Adv.*)

Practice for Sale.

For the past 40 years I have resided here and practiced my profession in the town of Marshall, Virginia, with a population of about 700. Due only to my age, I will leave the latter part of November. I have a brick home and office facilities. Can arrange terms. If you wish a good location, don't wait—write Dr. Jeter R. Allen, Marshall, Virginia. (*Adv.*)

Practice for Sale

And office for rent. Excellent 25-year general practice immediately available. Attractive 5-room office. Growing community, convenient to Prince George's General Hospital. Call MArket 7-3501 or write Box 429, Upper Marlboro, Maryland. (*Adv.*)

Obituaries . . . .

Dr. John Field Thaxton,

Prominent physician of Thaxton, Nelson County, died October 18th. He was a native of Lynchburg and seventy-five years of age. Dr. Thaxton graduated from the University of Louisville Medical School in 1910 and had practiced in Nelson County since that time. He retired from practice in 1953 because of ill health. Last year he was honored by the County on Nelson County Day for "outstanding service".

Dr. Thaxton was an organizer and past president of the Nelson County Medical Society. He was a member of The Medical Society of Virginia.

His wife, a son and a daughter survive him.

Dr. Tivis Colley Sutherland,

Prominent physician of Haysi, died October 21st after a long illness. He was eighty years of age and a graduate of the former University College of Medicine, Richmond, in 1908. Dr. Sutherland was born in Haysi and practiced there and in the surrounding

area for fifty-two years. He was very active in civic and community affairs. He was a charter member of the Kiwanis Club, a member of the Haysi Chamber of Commerce and had served on the Town Council for a number of years.

Dr. Sutherland was named by The Medical Society of Virginia as General Practitioner of the Year in 1958. He was a member of the Fifty Year Club, having joined the Society in 1910.

His wife, three sons and two daughters survive him. A son is Dr. J. P. Sutherland of Grundy.

Dr. Henry Jerome Langston,

Well known physician of Danville, died October 26th, at the age of seventy-two. He was a native of North Carolina and served as principal of a high school and with the YMCA for several years before entering the Medical College of Virginia, from which he graduated in 1921. Dr. Langston began his practice in Danville in 1922. He had been a member of The Medical Society of Virginia for thirty-eight years.

Dr. Langston is survived by two sons, a daughter and a brother.

Dr. Porter.

It is with great sorrow that we submit this resolution on the death of our esteemed friend and teacher, Dr. William Branch Porter. Dr. Porter was born in Powhatan County on June 7, 1888. He graduated in Medicine at the Medical College of Virginia, Class of 1911. He interned in the old Virginia Hospital and the Hygeia Hospital in Richmond, and until 1917 taught at the Medical College of Virginia.

Dr. Porter was commissioned as a Major in the United States Army Medical Service and served with Base Hospital 45 as a member of the Cardiovascular Unit until 1919. While in the service he had the opportunity to study under Sir Thomas Lewis in England and later in his career frequently mentioned the influence of both Sir Thomas Lewis and Sir William Osler in leading him towards a life of teaching and research in cardiovascular disease.

Dr. Porter was appointed Professor and Chairman of the Department of Medicine at the Medical College of Virginia in 1927 and held this post until his illness in May, 1956. Afterwards he was elevated to Emeritus Professor. He was the author of many scientific publications. Most of these were related to cardiovascular problems. Probably his finest study was on the effect of anemia on the heart. This research study was performed as a visiting professor of the School of Tropical Medicine in San Juan, Puerto Rico.

He was a member of the Association of American Physicians, the American Clinical and Climatological Association, the American College of Physicians, the American Board of Internal Medicine, the Southern Medical Association, the Richmond Academy of Medicine, The Medical Society of Virginia, the Virginia Academy of Sciences, the American Medical Association, the Society of Cincinnati, the Society of Colonial Wars, Sons of the Revolution, the Alpha Omega Alpha, Phi Rho Sigma and the Sigma Zeta fraternities.

Dr. Porter's entire medical life was devoted to teaching and research in cardiovascular disease. He was a superb diagnostician and a wonderful teacher. In 1952, thirty-five of his former residents formed in his honor the William Branch Porter Society, which presents an award each year to the outstanding senior graduate in medicine.

Dr. Porter was married to Martha Byrd Spruill in 1917. She passed away in 1957. Although they had no children, all of us whom he taught loved him as a father. With his passing there also ended an era at the Medical College. This was an era of growth, achievement, and clinical greatness which laid the foundation for the present wonderful institution.

H. St. George Tucker, Jr., M.D.
G. Watson James, III, M.D.
Nathan Bloom, M.D., *Chairman*

Dr. Terrell.

The medical profession and the community life of Richmond sustained a great loss in the death of Dr. Emmett Herman Terrell, who died September 7, 1960, at the age of eighty-two. He is suvived by his widow, the former Miss Daisy Ellett, as well as two daughters, four grandchildren, and five great-grandchildren.

Dr. Terrell was born near Beaverdam in Hanover County, the eldest son of Charles Thomas Terrell and Frances McGehee Terrell. He was educated in private schools in Louisa and Hanover Counties, attended William and Mary College, and was graduated in medicine at the Medical College of Virginia in the year 1900. After interning at the Norfolk General Hospital he came to Richmond and entered into general practice with Dr. Everett W. Gee. Later, he went to New York City for special training in proctology, after which he returned to Richmond and specialized in this field from 1914 until his retirement in 1947.

For forty-six years, he was a member of the faculty at the Medical College of Virginia, and upon his retirement in 1947, because of ill health, he was made Emeritus Professor of Clinical Proctology. He was greatly loved and admired, both by his patients and medical students; and made many notable contributions to his specialty, the most important being—the introduction of the use of Quinine and Urea Hydrochloride in the injection treatment of internal hemorrhoids.

Dr. Terrell was a Fellow of the American Proctologic Society and served as its President in 1923. He was also a Fellow of the American Medical Association, and Chairman of the Section on Gastro-enterology and Proctology in 1944. In 1946 he served as the President of the Richmond Academy of Medicine. He also held memberships in The Medical Society of Virginia, the Tri-State Medical Society and the Southern Medical Association.

He was a member of Omega Upsilon Phi Fraternity, and was the recipient of an honorary membership in Phi

Beta Kappa, as well as the College of William and Mary Alumni Medallion for eminence in his specialty of proctology.

He was also one of the charter members of the Richmond Rotary Club, and for more than sixty years, was a communicant of the Seventh Street Christian Church.

We record with regret the passing of this distinguished physician and beloved friend, whose quiet, yet pervasive influence will be greatly missed by us all.

Therefore, Be It Resolved that an expression of our admiration of his life, and of our sorrow at his death, these words be spread upon the minutes of the Richmond Academy of Medicine, and that copies be sent to his family and to the Virginia Medical Monthly.

C. C. Chewning, Jr., M.D.
A. S. Graham, M.D.
L. T. Stoneburner, M.D., *Chairman*

Dr. Garcin.

It was with deep sorrow that we learned of the passing of one of our most renowned members, Dr. Ramon D. Garcin, Sr. on September 18, 1960. He was 93 years old.

Dr. Garcin, the son of Ramon and Margaret Thomas Garcin, was born on September 19, 1867, in Powhatan County, where he attended the elementary schools and graduated from the Old Richmond High School (now John Marshall) in 1884. He then entered the Medical College of Virginia from which he received his M.D. degree in 1887. At the time of his death, Dr. Garcin was the oldest living graduate of the Medical College of Virginia. He was a member of the Alpha Kappa Kappa Medical Fraternity.

Upon graduation from Medical College of Virginia, Dr. Garcin accepted an apointment as physician to the State Penitentiary in Columbia, South Carolina, where he remained for approximately three years. While in Columbia he arranged to attend the University of South Carolina, from which institution, he received his A.B. degree in 1890. He spent a year at New York Post Graduate School and Hospital and then returned to Richmond and opened his office on East Broad Street in Church Hill, where he practiced medicine for more than 65 years.

On October 11, 1893, Dr. Garcin married Miss Mary E. Jackson, of Charlottesville. They had four children, Raymond Edward, Lyne, Emma, and Ramon D., Jr. Raymond Edward died in infancy, and Mrs. Garcin died in 1948. Dr. Garcin is survived by a brother, a daughter, a son, Dr. Ramon D. Garcin, Jr., of Richmond, four grandchildren and seven great grandchildren.

During his long and full life Dr. Garcin's activities and accomplishments were so numerous that we only recorded a few of the outstanding events of his life.

In the field of medicine, Dr. Garcin was an outstanding physician, with a deep feeling of pride and responsibility to his many patients. He was the personal physician to several Virginia Governors and was president of the Richmond Academy of Medicine in 1907. He served on the staff of the M.C.V. Hospital, St. Luke's, Sheltering Arms, and Retreat for the Sick. Beside the Richmond Academy of Medicine he belonged to the American Medical Association, The Medical Society of Virginia, and the New York Academy of Medicine. He was a Mason and served as a faithful physician to the boys and girls of the Masonic Home for more than sixty years.

Dr. Garcin was interested in and devoted much of his time and talents to his State, his City, and his Church. He belonged to Leigh Street Baptist Church and was medical director of the Southern Baptist Mission Board for 15 years. He was a member of the first Board of Health of Richmond, which Board he served for 25 years. He served on the City School Board for 21 years and the City Library Board for over 30 years.

In writing this resolution it is our first thought to pay tribute to the memory of a Christian Gentleman, loyal friend, and distinguished physician. In an editorial in the Richmond Times Dispatch, Dr. Virginius Dabney concluded with the following quotation "Such a record of willingness to devote one's time and talents in the service of others and for the well-being of one's community, is almost unprecedented. Richmond and its people owe Dr. Garcin a truly profound debt of gratitude."

Therefore Be It Resolved by the Richmond Academy of Medicine, on this 25 day of October, 1960, that we express our sincere and heartful sympathy to the family of our departed friend and colleague, to whom this memorial shall be sent, a copy be made a part of the permanent records of this Academy and a copy submitted to The Medical Society of Virginia.

Arthur S. Brinkley, M.D.
Horace Hicks, M.D.
Clarry C. Trice, M.D., *Chairman*

Dr. Carson.

In the death of Dr. Adrian L. Carson, Jr., this Academy and its members lost a faithful and respected colleague, and at the same time the Commonwealth of Virginia lost one of its outstanding public health physicians. Dr. Carson served well the citizens of the Commonwealth for twenty-nine years.

Dr. Carson, a native Virginian, took his premedical work at the University of Richmond. He was graduated from the Medical College of Virginia School of Medicine in 1925. After two years of internship and three years in private practice, Dr. Carson served a two-and-one-half years' residency in obstetrics at the New York Nursery and Child's Hospital. In 1937 he completed a graduate course in maternal and child health administration at the Harvard School of Public Health.

Dr. Carson joined the Virginia State Department of Health as an assistant physician in the Bureau of Communicable Disease Control and afterwards served for five years as director of the Fairfax County Health Department. In 1936 he became assistant director of the Maternal and Child Health Bureau and in 1940 was made director of that bureau. In 1948 he became director of the Division of Specialized Medical Services and since 1952 had been director of another major division of the State Department of Health—that of Local Health Services.

Since 1941 Dr. Carson served on the teaching staff of the Medical College of Virginia and at the time of his death was Assistant Clinical Professor of Obstetrics and Gynecology. In recent years he also served as consultant

in obstetrics to two smaller hospitals associated with the Medical College of Virginia in its regional continuation education program.

Dr. Carson was a member of this Academy, of The Medical Society of Virginia, and the American Medical Association. He was also a Diplomate of the American Board of Preventive Medicine and Public Health, a Fellow of the American Academy of Obstetrics and Gynecology, a Fellow of the American Public Health Association, a Fellow of the South Atlantic Association of Obstetricians and Gynecologists, a member of the Virginia Ohstetrical and Gynecological Society, and a member of the Richmond Obstetrical and Gynecological Society.

We feel a deep sense of loss in his passing and desire to extend to Mrs. Carson, her son, and friends our sincerest sympathy.

Be It Resolved, therefore, that this expression of our feeling be read into the minutes of the Richmond Academy of Medicine; that a copy be transmitted to Mrs. Carson; and, further, that a copy be forwarded to the Virginia Medical Monthly for publication.

Mack I. Shanholtz, M.D.
Charles L. Outland, M.D.
Frederick A. Clark, M.D.

Dr. Sutton.

We sorrowfully record the passing of Dr. Richard Nevitte Sutton, an Arlington General Practitioner for nearly fifty years.

Dr. Sutton was born on September 13, 1886, in Westmoreland County on Virginia's Northern Neck. In his youth he moved with his family to Ballston, in Arlington County. He attended Western High School and Georgetown University in Washington, D.C., where from the latter he received his M.D. in 1910, following which he served a one-year internship at the University Hospital. He then opened his office for general practice in old Clarendon, during the first eight years of which he served as a member of the Anesthesia Department at Georgetown Hospital.

Dr. Sutton was a founder of the Arlington County Medical Society, and twice served as its president. He belonged to The Medical Society of Virginia, the District of Columbia Medical Society and was a member of the American Medical Association.

During the years of World War II he was very active in the planning and organization of the Medical Staff of Arlington Hospital. He served as the first president of the Medical Staff, and remained a member of the Governing Staff until his death.

Dr. Sutton was a charter member and first president of the Arlington Rotary Club. He was a charter member and past president of the Washington Golf and Country Club. He was a director of the Clarendon Trust Company, and was a lifelong member of Mt. Olivet Methodist Church.

Dr. Sutton was held in the highest respect by members of his profession, both in Northern Virginia and in Washington, D. C.

Dr. Sutton died in July of this year at his summer home in North Conway, New Hampshire. He had retired from active practice in 1959, ending almost fifty years of service to medicine and his community. He will be missed by his many patients, friends and fellow physicians.

Therefore, Be It Resolved that the Arlington County Medical Society express its sorrow in the loss of its honored memher, Dr. Richard Nevitte Sutton.

Be It Further Resolved that this be made a part of the minutes of the Arlington County Medical Society.

Alfred M. Palmer, M.D.

Dr. Eddy.

It is with profound sorrow and regret that the Tri-County Medical Society records the death of one of its loved and respected members, Dr. William Nelson Eddy, which occurred on July 15, 1960.

Although he had been in ill health for some time, his death came as a shock to his many patients and colleagues.

Dr. Eddy, a native of New York State, and a graduate of Syracuse University, where he earned his B.A. as well as M.D. degree, began an internship at New York City Hospital, N.Y. He was called to serve with the Army Medical Corps in World War II. He later served a Residency at Auburn City Hospital, Auburn, N.Y.

Dr. Eddy began the general practice of medicine in Suffolk on October 1, 1947. He was a quiet, unassuming person and a willing worker who participated in the affairs of his church and community as well as taking an active part in the functions of the Medical Staff at the Hospital.

He was a member of the Tri-County Medical Society, The Medical Society of Virginia, Seaboard Medical Association of Virginia and North Carolina, and the American Medical Association.

He was a member of, and former vestryman at St. Paul's Episcopal Church, Suffolk. He had also served in the Cancer Society, Suffolk-Nansemond County Tuberculosis Association and Community Chest.

Be It Resolved by the Tri-County Medical Society that a copy of this resolution be spread upon the minutes, and that a copy be sent to his wife and children.

B. L. Holladay, M.D.
L. J. Stetson, M.D.

VIRGINIA MEDICAL MONTHLY

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The Medical Society of Virginia

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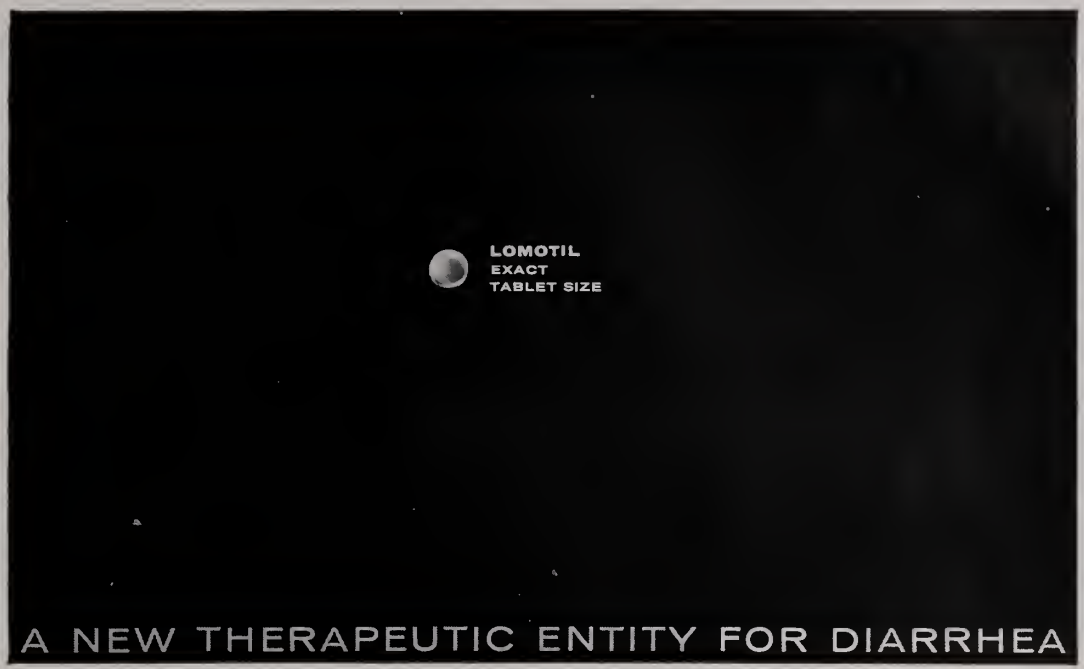

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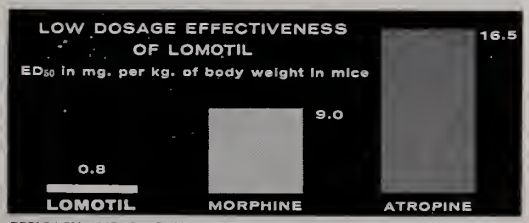

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1. Weissberg, G.: Clin. Med., June 1960.

2. Spoor, H. J.: N. Y. St. J. Med., Oct. 15, 1958.

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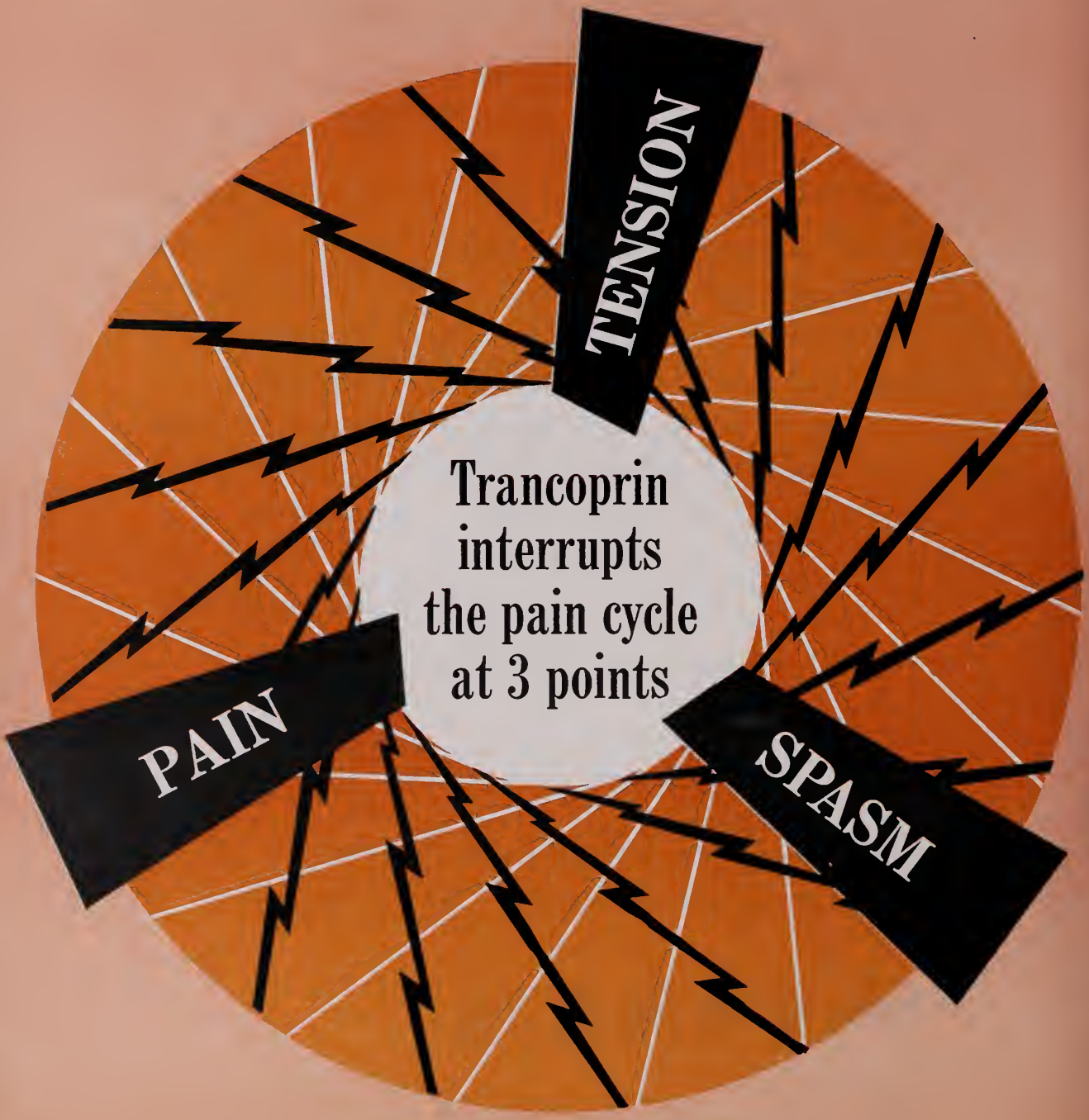

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References: 1. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 2. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960. 5. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 6. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 7. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 8. Collective Study, Department of Medical Research, Winthrop Laboratories. 9. Hergesheimer, L. H.: An evaluation of a muscle relaxant (Trancopal) alone and with aspirin (Trancoprin) in an industrial medical practice, to be submitted.

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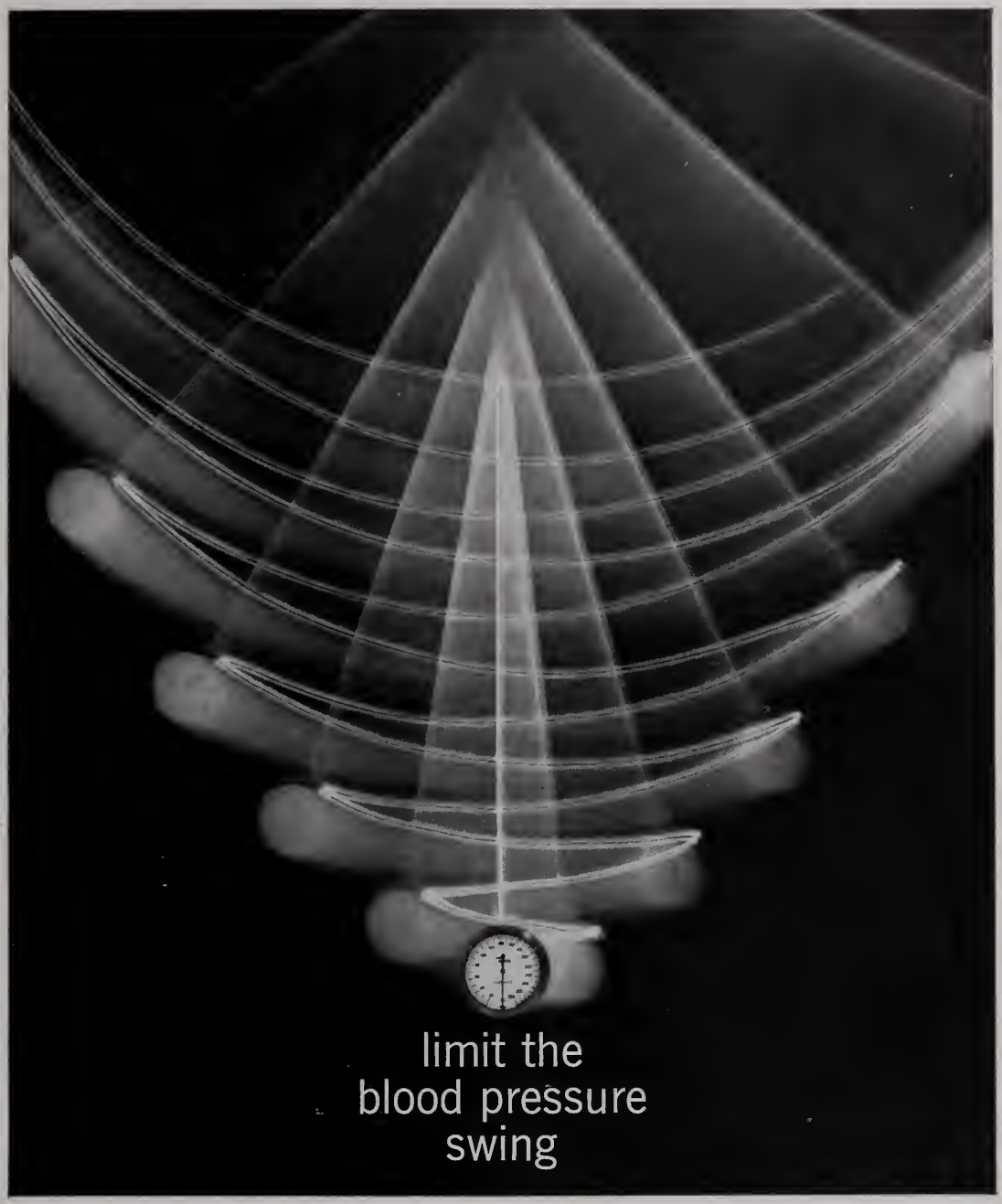

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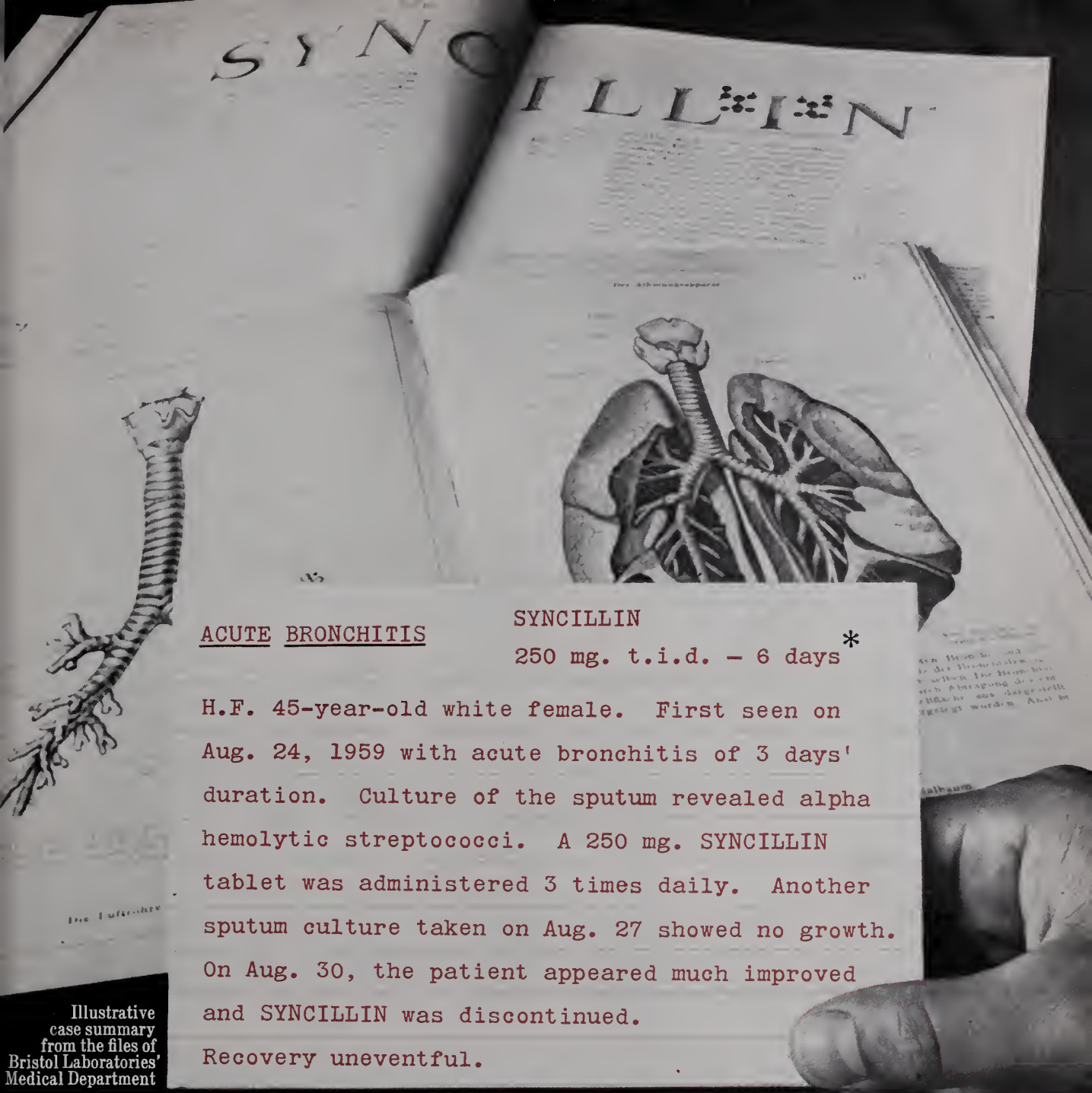

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References: 1. Pitts, R. F., Am. J. Med., 24:745, 1958. 2. Ford, R. V., Cur. Therap. Res., 2:51, 1960.

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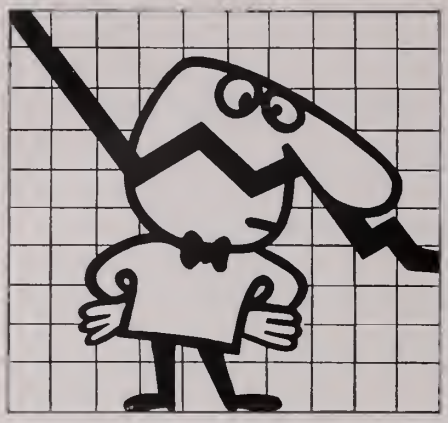

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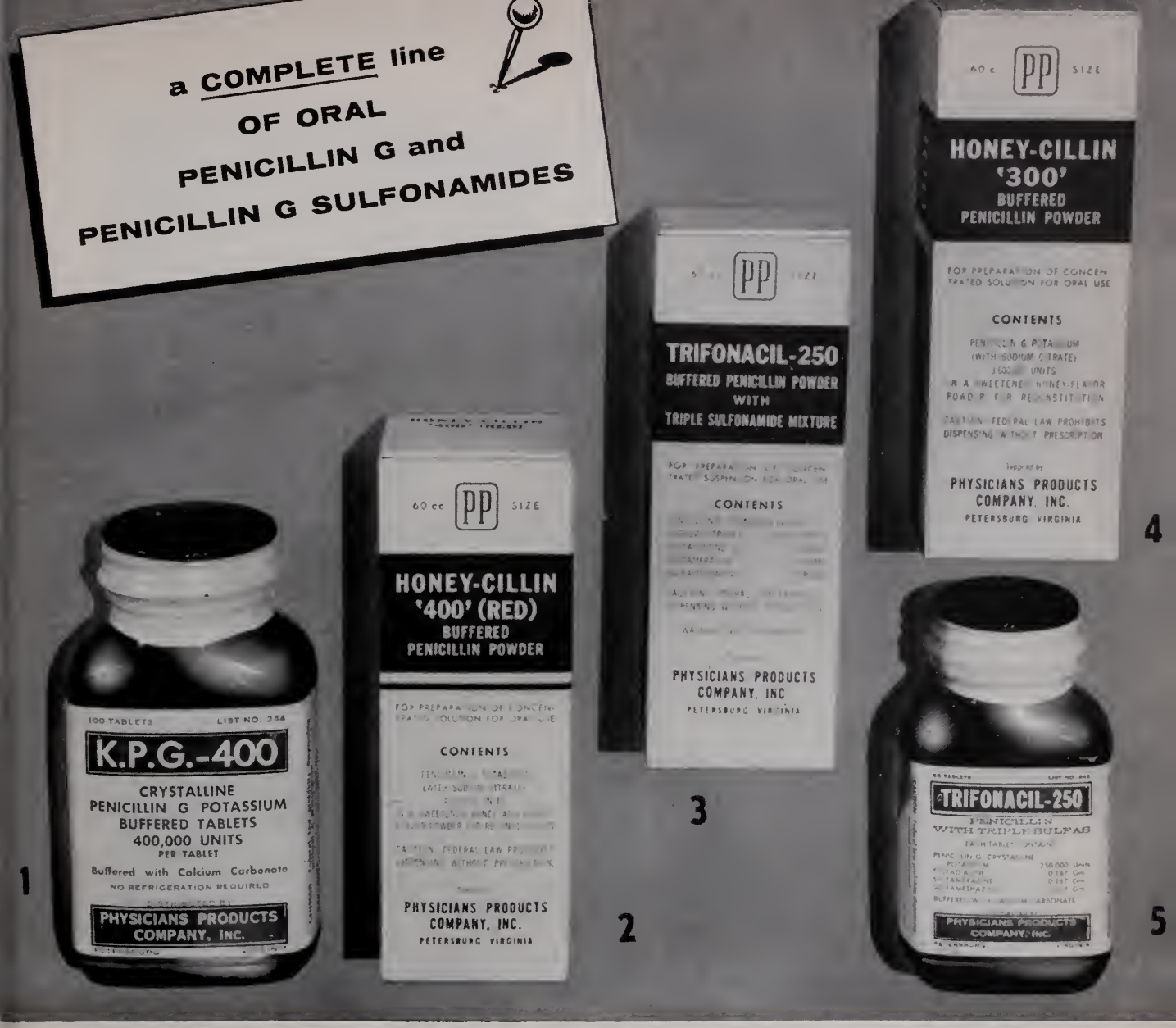

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for the patient who is

coughing his head off

in upper respiratory infections

HASACODE®

- ✻ Quiets the overactive cough reflex
- ✻ Relieves aches and fever
- ✻ Sedates the anxious patient
- ✻ Handy tablet form

COMPOSITION: Each tablet contains:

Acetylsalicylic Acid	2½ grains
Acetophenetidin (Phenacetin)	2½ grains
Phenobarbital	¼ grain
Codeine Phosphate	¼ grain
Hyoscyamus Alkaloids	.0337 mg.

DOSE: One or two tablets every 3 or 4 hours, as required. Not more than 8 tablets should be taken in 24 hours. WARNING: *may be habit forming.*

also HASACODE "STRONG"

Same formula as HASACODE, but with ½ grain codeine phosphate. For use where relief of pain is the primary target. DOSE: As for HASACODE.

And for relief of less severe type of respiratory infection:

HASAMAL®

Same formula as HASACODE, but without codeine phosphate. DOSE: As for HASACODE.

SUPPLIED: All forms available in bottles of 100 and 500 tablets.

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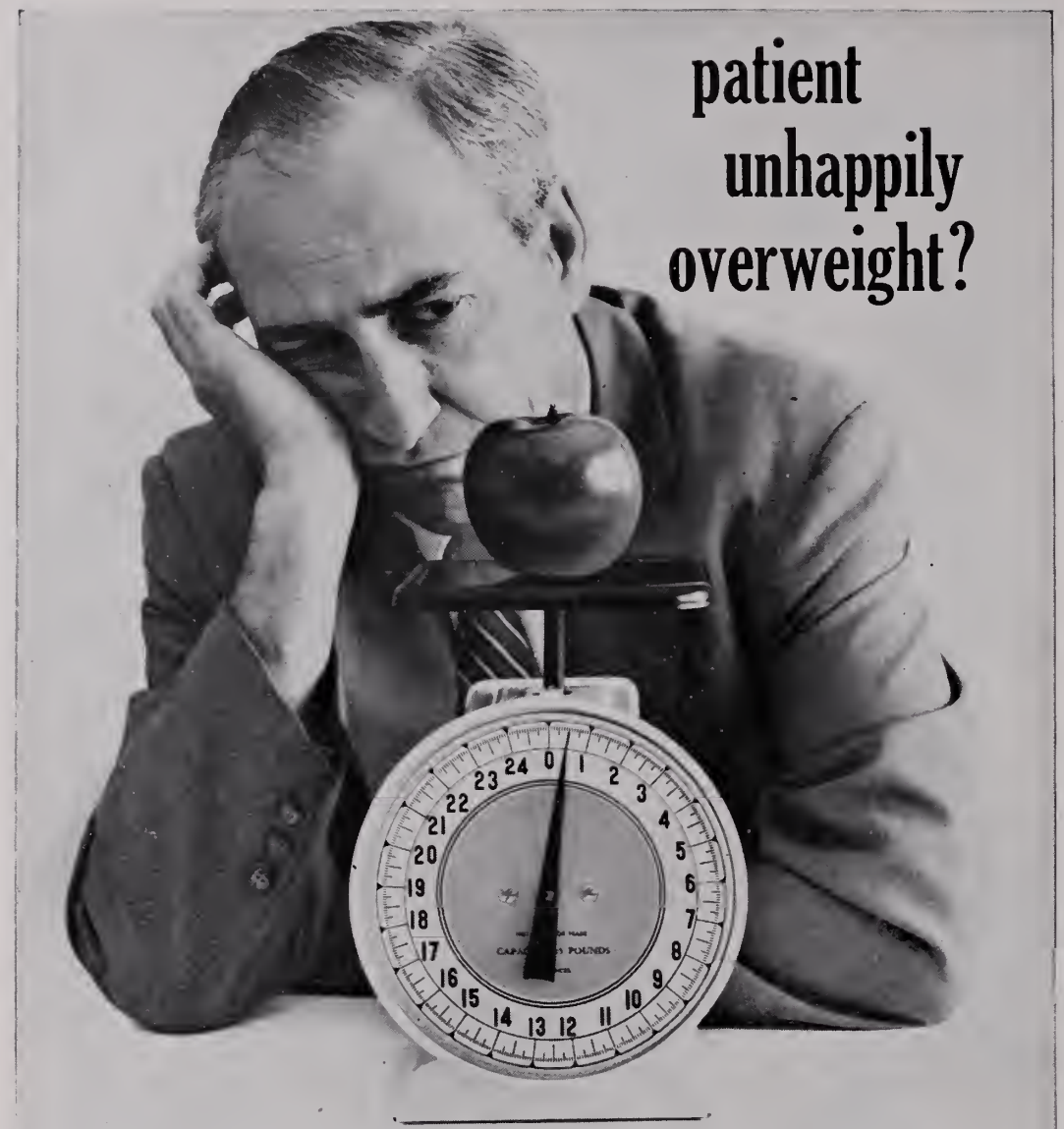
Richmond, Virginia



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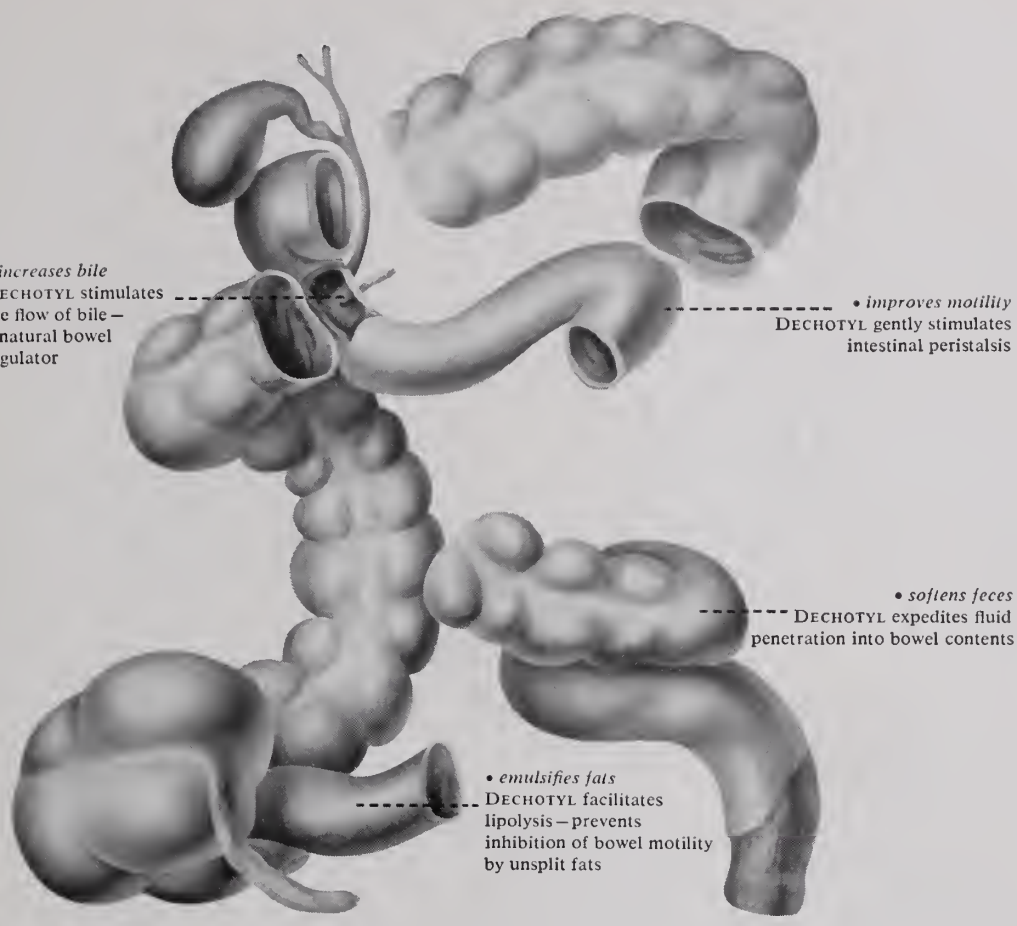
brand Methamphetamine Hydrochloride

Controls food craving, keeps the reducer happy—In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent."[1] Literature available on request.

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

[1] Douglas, H. S.: West. J. Surg. 59:238 (May) 1951.

BURROUGHS WELLCOME & CO. (U. S. A.) INC., Tuckahoe, New York



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DECHOTYL®

TRABLETS*

well tolerated...gentle transition to normal bowel function

Recommended to help convert the patient—naturally and gradually—to healthy bowel habits. Regimens of one week or more are suggested to assure maintenance of normal rhythm and to avoid the repetition of either laxative abuse or constipation.

Average adult dose: Two TRABLETS at bedtime as needed or as directed by a physician. *Action usually is gradual, and some patients may need 1 or 2* TRABLETS *3 or 4 times daily.*

Contraindications: Biliary tract obstruction; acute hepatitis.

DECHOTYL TRABLETS provide 200 mg. DECHOLIN,® (dehydrocholic acid, AMES), 50 mg. desoxycholic acid, and 50 mg. dioctyl sodium sulfosuccinate, in each trapezoid-shaped, yellow TRABLET. Bottles of 100.

*AMES T.M. for trapezoid-shaped tablet.

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DEXEDRINE® Spansule® capsules • Tablets • Elixir

brand of dextro amphetamine

Each 'Dexedrine' Spansule sustained release capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.

SMITH KLINE & FRENCH

The New York Academy of Medicine

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